



**Calhoun: The NPS Institutional Archive**  
**DSpace Repository**

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

2009-09

## An exploratory study of Alpha contracting: antecedents, processes, issues, success factors and consequences

Kirzow, Robert; Sweeney, Colleen

Monterey, California. Naval Postgraduate School

---

<http://hdl.handle.net/10945/10471>

---

*Downloaded from NPS Archive: Calhoun*



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School**  
**411 Dyer Road / 1 University Circle**  
**Monterey, California USA 93943**

<http://www.nps.edu/library>



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

---

## **JOINT APPLIED PROJECT**

---

**An Exploratory Study of Alpha Contracting:  
Antecedents, Processes, Issues, Success Factors and Consequences**

---

**By: Robert Kirzow, and  
Colleen Sweeney  
September 2009**

**Advisors: Jeffrey Cuskey,  
Timothy Hawkins**

*Approved for public release; distribution is unlimited*

THIS PAGE INTENTIONALLY LEFT BLANK

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
<b>1. AGENCY USE ONLY (Leave blank)</b>		<b>2. REPORT DATE</b> September 2009	<b>3. REPORT TYPE AND DATES COVERED</b> Joint Applied Project	
<b>4. TITLE AND SUBTITLE</b> An Exploratory Study of Alpha Contracting: Antecedents, Processes, Issues, Success Factors and Consequences			<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Robert Kirzow and Colleen Sweeney				
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A			<b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited			<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (maximum 200 words)</b> Alpha contracting is a collaborative effort between a buyer and supplier during contract formation to maximize efficiency and effectiveness. Although several benefits of Alpha contracting are espoused in the literature, the concept is not ubiquitous, nor is it well understood. The purpose of this Joint Applied Project is to evaluate current Department of Defense (DoD) procedures for the use of Alpha contracting. Specifically, we plan to explore Alpha contracting to define what constitutes successful/unsuccessful Alpha contracting, as well as the contributing factors to both outcomes. Additionally, we will identify antecedents for and consequences of use, and variations of the processes employed. This research will identify the utility of Alpha contracting, and explain its narrow usage to date. Using a case study methodology, we will interview experienced Alpha contracting teams, to include contracting officers, DCAA, DCMA, end users/customers, program managers and acquisition directors to better understand the Alpha contracting phenomenon. We will use interview results and research to develop recommendations to address the factors that lead to successful Alpha contracting, as well as the barriers that arise once used.				
<b>14. SUBJECT TERMS</b> Alpha contracting			<b>15. NUMBER OF PAGES</b> 135	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-18

THIS PAGE INTENTIONALLY LEFT BLANK

**Approved for public release; distribution is unlimited**

**AN EXPLORATORY STUDY OF ALPHA CONTRACTING: ANTECEDENTS,  
PROCESSES, ISSUES, SUCCESS FACTORS AND CONSEQUENCES**

Robert Kirzow, Contracting Officer, Department of Homeland Security  
Colleen Sweeney, Procurement Analyst, Department of Army

Submitted in partial fulfillment of the requirements for the degree of

**MASTER OF CONTRACT MANAGEMENT**

from the

**NAVAL POSTGRADUATE SCHOOL  
September 2009**

Authors:

---

Robert Kirzow

---

Colleen Sweeney

Approved by:

---

Jeffrey Cuskey, Lead Advisor

---

Dr. Timothy Hawkins, Support Advisor

---

Dr. William Gates, Dean  
Graduate School of Business and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

# **AN EXPLORATORY STUDY OF ALPHA CONTRACTING: ANTECEDENTS, PROCESSES, ISSUES, SUCCESS FACTORS AND CONSEQUENCES**

## **ABSTRACT**

Alpha contracting is a collaborative effort between a buyer and supplier during contract formation to maximize efficiency and effectiveness. Although several benefits of Alpha contracting are espoused in the literature, the concept is not ubiquitous, nor is it well understood. The purpose of this Joint Applied Project is to evaluate current Department of Defense (DoD) procedures for the use of Alpha contracting. Specifically, we plan to explore Alpha contracting to define what constitutes successful/unsuccessful Alpha contracting, as well as the contributing factors to both outcomes. Additionally, we will identify antecedents for and consequences of use, and variations of the processes employed. This research will identify the utility of Alpha contracting, and explain its narrow usage to date. Using a case study methodology, we will interview experienced Alpha contracting teams, to include contracting officers, DCAA, DCMA, end users/customers, program managers and acquisition directors to better understand the Alpha contracting phenomenon. We will use interview results and research to develop recommendations to address the factors that lead to successful Alpha contracting, as well as the barriers that arise once used.



THIS PAGE INTENTIONALLY LEFT BLANK

## TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>A.</b>	<b>OVERVIEW.....</b>	<b>1</b>
<b>B.</b>	<b>BACKGROUND.....</b>	<b>2</b>
<b>C.</b>	<b>PURPOSE.....</b>	<b>3</b>
<b>D.</b>	<b>RESEARCH QUESTIONS.....</b>	<b>4</b>
1.	Primary Research Question.....	4
2.	Secondary Research Questions.....	4
<b>E.</b>	<b>SCOPE.....</b>	<b>5</b>
<b>F.</b>	<b>METHODOLOGY.....</b>	<b>5</b>
<b>G.</b>	<b>ORGANIZATION OF STUDY.....</b>	<b>6</b>
<b>II.</b>	<b>BACKGROUND.....</b>	<b>7</b>
<b>A.</b>	<b>INTRODUCTION.....</b>	<b>7</b>
<b>B.</b>	<b>TRADITIONAL SOLE-SOURCE CONTRACTING PROCESS.....</b>	<b>8</b>
<b>C.</b>	<b>ALPHA CONTRACTING PROCESS.....</b>	<b>12</b>
<b>D.</b>	<b>ALPHA CONTRACTING AS A SUBSET OF THE IPPD AND IPT PRINCIPLES.....</b>	<b>14</b>
<b>E.</b>	<b>THE ROLE OF RELATIONAL EXCHANGES AND BUYER-SUPPLIER RELATIONSHIPS IN ALPHA CONTRACTING.....</b>	<b>15</b>
1.	Relational Exchanges.....	15
2.	Buyer-Supplier Relationships.....	18
3.	Institutional Trust.....	18
<b>F.</b>	<b>ALPHA CONTRACTING ADVANTAGES.....</b>	<b>19</b>
1.	Reduced PALT.....	19
2.	Decreased Overall Costs.....	20
3.	Improved Relationship between Government and Contractor.....	21
4.	Improved Contract Quality.....	21
5.	Facilitates Proactive Risk Management.....	22
<b>G.</b>	<b>ALPHA CONTRACTING DISADVANTAGES.....</b>	<b>22</b>
1.	Requires a Large Investment of Upfront Resources.....	22
2.	Difficult to Maintain the IPT.....	23
3.	Requires an Organizational Culture Change, Management Buy-in, and Institutional Trust.....	23
4.	Criteria for Use.....	24
<b>H.</b>	<b>JOINT STAND-OFF WEAPON (JSOW) PROGRAM ALPHA CONTRACTING CASE STUDY.....</b>	<b>25</b>
1.	Program Background.....	25
2.	JSOW Alpha Contracting Case Study.....	26
a.	<i>Benefits of Alpha Contracting for the JSOW Program.....</i>	<i>26</i>
b.	<i>Key Contextual Factors and Managerial Decisions of JSOW.....</i>	<i>27</i>
3.	Summary.....	29

I.	SUMMARY .....	29
III.	METHODOLOGY .....	31
A.	CHAPTER OVERVIEW .....	31
B.	RESEARCH OBJECTIVES.....	31
C.	METHODOLOGY .....	31
D.	VALIDITY AND RELIABILITY .....	32
E.	DATA COLLECTION .....	34
1.	Mobile Subscriber Equipment (MSE) Shelter Overhaul Phase III and Phase IV .....	35
2.	Advanced Threat Infrared Countermeasure/Common Missile Warning Program (ATIRCM/CMWS).....	36
3.	C-130 Center Wing Replacement Program.....	36
4.	AN/TPQ-36 Firefinder Radar (V)8 Electronics Upgrade Program .....	36
5.	AN/ZPQ-1 Tactical Endurance Synthetic Aperture Radar (TESAR).....	37
6.	Intelligence Electronic Warfare Common Sensor (IEWCS) .....	38
7.	Enhanced Position Location Reporting System (EPLRS) .....	39
8.	Single Channel Ground and Airborne Radio System (SINCGARS) .....	39
F.	SUMMARY .....	40
IV.	RESULTS .....	41
A.	CHAPTER OVERVIEW .....	41
B.	SUMMARY OF INTERVIEW RESPONSES.....	41
C.	DATA ANALYSIS .....	57
1.	Data Coding .....	57
2.	Explanation Building.....	59
3.	Chain of Evidence .....	63
4.	Antecedents and Consequences .....	64
5.	Rival Explanations.....	66
a.	<i>What Constitutes/Defines a Successful/Unsuccessful Alpha Contracting Process, and what Factors are Expected to Contribute to Success or Failure of Alpha Contracting?.....</i>	67
b.	<i>How often is Alpha Contracting Employed and Why?.....</i>	67
c.	<i>Under what Circumstances is the Implementation of the Alpha Contracting Method Appropriate? .....</i>	67
d.	<i>What are the Advantages/Disadvantages of the Alpha Contracting Process? .....</i>	68
e.	<i>What are the Potential Barriers to the Utilization of the Alpha Contracting Approach?.....</i>	69
D.	SUMMARY .....	69
V.	CONCLUSIONS AND RECOMMENDATIONS.....	71
A.	CHAPTER OVERVIEW .....	71

<b>B.</b>	<b>RESEARCH QUESTIONS.....</b>	<b>71</b>
1.	What Constitutes/Defines a Successful/Unsuccessful Alpha Contracting Process, and what Factors are Expected to Contribute to Success or Failure of Alpha Contracting?.....	71
2.	How Often is Alpha Contracting Employed and Why? .....	73
3.	Under What Circumstances is the Implementation of the Alpha Contracting Method Appropriate?.....	74
4.	What are the Advantages/Disadvantages of the Alpha Contracting Process? .....	77
5.	What are the Potential Barriers to the Utilization of the Alpha Contracting Approach?.....	78
<b>C.</b>	<b>THE JSOW CASE STUDY .....</b>	<b>78</b>
<b>D.</b>	<b>CONCLUSIONS .....</b>	<b>82</b>
<b>E.</b>	<b>RECOMMENDATIONS.....</b>	<b>83</b>
1.	Establish Procedures for Use and Incorporate Them into Training .....	83
2.	Track Use of Alpha Contracting .....	84
3.	Establish Teaming Agreements and Conduct Kick-Off Meetings.....	84
4.	Establish an Alpha Contracting Focal Point and a Database of Lessons Learned and Best Practices .....	84
<b>F.</b>	<b>AREAS FOR FURTHER RESEARCH.....</b>	<b>85</b>
1.	Metrics to Measure Alpha Contracting Success .....	85
2.	Structural Barriers .....	85
3.	Expanded Uses for Alpha Contracting .....	86
<b>G.</b>	<b>LIMITATIONS OF STUDY .....</b>	<b>86</b>
<b>H.</b>	<b>SUMMARY .....</b>	<b>87</b>
	<b>APPENDIX A. INTERVIEW PROTOCOL .....</b>	<b>89</b>
	<b>APPENDIX B. SAMPLE MEMORANDUM OF UNDERSTANDING (MOU).....</b>	<b>93</b>
	<b>APPENDIX C. CROSS-CASE META MATRIX .....</b>	<b>105</b>
	<b>LIST OF REFERENCES.....</b>	<b>115</b>
	<b>INITIAL DISTRIBUTION LIST .....</b>	<b>119</b>

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF FIGURES

Figure 1.	Traditional Sole-Source Contracting Process (From: Nissen, 2001).....	9
Figure 2.	Alpha contracting Process (From: Nissen, 2001) .....	13
Figure 3.	Antecedents and Result of Relationship Commitment and Trust (From: Morgan & Hunt, 1994, p. 22) .....	17
Figure 4.	Key Process and Contextual Factors (From: Nissen) .....	27
Figure 5.	Clustering of Factors (From: Nissen) .....	28
Figure 6.	JSOW Alpha Contracting Process Scoring (From: Nissen) .....	29
Figure 7.	Alpha Contracting Flowchart.....	54
Figure 8.	Antecedents of Alpha Contracting Use.....	65
Figure 9.	Consequences of Alpha Contracting Use .....	65
Figure 10.	Predictors of Alpha Contracting Success.....	72
Figure 11.	Antecedents and Consequences of Alpha Contracting .....	76
Figure 12.	Clustering of Factors (From: Nissen) .....	79
Figure 13.	Comparison of Contributing Factors .....	80

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF ACRONYMS AND ABBREVIATIONS

ACAT	Acquisition Category
ADM	Acquisition Decision Memorandum
AR	Acquisition Reform
ARP	Acquisition Requirements Package
ATIRCM/CMWS	Advanced Threat Infrared Countermeasure/Common Missile Warning System
CAIV	Cost as an Independent Variable
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DoD	Department of Defense
EMD	Engineering and Manufacturing Development
EPLRS	Enhanced Position Location Reporting System
FAR	Federal Acquisition Regulations
IEWCS	Intelligence Electronic Warfare Common Sensor
IPPD	Integrated Product and Process Development
IPT	Integrated Product Team
IR	Infrared
JAP	Joint Applied Project
JSOW	Joint Stand-Off Weapon
LRIP	Low-Rate Initial Production
MAIS	Major Automated Information System
MDAP	Major Defense Acquisition Program
MOU	Memorandum of Understanding
OC	Operations Central
OCG	Operations Control Group
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
PALT	Procurement Acquisition Lead Time
PM	Program Manager
PMO	Program Management Office



RFP	Request for Proposal
SIGINT/EW	Signals Intelligence/Electronic Warfare
SINCGARS	Single Channel Ground Airborne Radio System
SOW	Statement of Work
TDY	Temporary Duty
TESAR	Tactical Endurance Synthetic Aperture Radar
UAV	Unmanned Aerial Vehicle
UCA	Undefinitized Contract Action

## **I. INTRODUCTION**

### **A. OVERVIEW**

The Federal Acquisition Regulation (FAR) guides the acquisition of products and supplies for the Department of Defense (DoD) and mandates the government to attempt to procure products and services through the use of adequate competition. However, competition is not always feasible; sole-source acquisitions are a perpetual reality in defense procurement. Sole-source acquisitions occur when the government can or must—for various legitimate reasons—procure the product or service from only one source. Due to the unique technologies utilized by the DoD, the ongoing efforts for Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF), and the continued consolidation of defense contractors, sole-source acquisitions continue to be a major aspect of DoD contracting.

Sole-source contracting can be a long, drawn-out process, depending on the size and complexity of the procurement, as well as numerous other variables. The need to streamline the DoD contracting process and reduce procurement acquisition lead time (PALT) was emphasized in the June 30, 1986 Packard Commission report. The report concluded “that the defense acquisition system has basic problems that must be corrected. These problems are deeply entrenched and have developed over several decades from an increasingly bureaucratic and over-regulated process. As a result, all too many of our weapon systems cost too much, take too long to develop, and by the time they are fielded, incorporate obsolete technology” (President’s Blue Ribbon Commission, 1986, p. 44).

The prolonged time to meet users’ requirements, caused by the inability to reduce PALT, “lowers customer satisfaction, costs more money, and is not responsive to the changing-threat environment” (Brodfuehrer, 2000, p. 23). Non-responsiveness to the changing-threat environment may be the most important impact of prolonged PALT because the failure to meet the changing-threat environment may result in the failure to meet the military’s most essential requirement of defending the nation (Brodfuehrer, 2000). Lt. Col. Brian Brodfuehrer points to the following three factors that have emerged

in recent years that have resulted in rapid changes in the threat environment: 1) A larger number of potential enemies and the increase in the number of rogue aggressors, such as terrorist groups; 2) The rise of a more global economy resulting in less restricted sharing of technology; and, 3) Rapid growth of technology, particularly in the computer and communications industry sector (Broduehrer, 2000). With the ongoing efforts for OEF/OIF, there is an increased emphasis to streamline the DoD contracting process and reduce PALT in order to provide the warfighters with quality products and services at a fair and reasonable price as quickly as possible.

## **B. BACKGROUND**

Alpha contracting is one of several names used to describe an innovative technique that takes the contracting process and converts it from a consecutive process into a concurrent process (Meyer, 1997). Alpha contracting utilizes government-contractor collaboration throughout the entire pre-award process to develop and price the requirements and scope of work. Alpha contracting is an innovative approach designed to streamline the acquisition process, and has also been referred to as IPT Pricing or “One Pass” Pricing.

Alpha contracting has been utilized by various agencies throughout the DoD, although the true origin of the Alpha contracting process is unclear. There are numerous published articles that document the use of Alpha contracting to acquire services or supplies (Rapka, 2006; Vinson, 2001; Wallace, 2000). Most of these articles are success stories that tell how Alpha contracting was utilized to form a sole-source contract within shorter than normal PALT and/or at reduced costs. These accounts, along with previous Alpha contracting studies (Goodwin, 2002; Schutter, 1998), have detailed the benefits and disadvantages associated with the Alpha contracting approach; however, very little information is available that details the contributing factors to successful/unsuccessful Alpha contracting or the antecedents for and consequences of use of the Alpha contracting process. Further, although most people within the DoD acquisition community have not participated in Alpha contracting, the reasoning behind this lack of participation has not been addressed and requires further explanation. Without this data it

may be difficult for acquisition officials to determine whether the utilization of Alpha contracting would be appropriate for a specific acquisition, leading to the development of acquisition strategies that may not be best suited for the acquisition. Finally, the acquisition workforce is not educated or trained by the DoD on the tenets or advantages of relational exchange, key enabling phenomenon pertaining to Alpha contracting.

Despite the documented successes of Alpha contracting, the current contracting atmosphere may be trending back towards an arms-length approach versus a relational exchange process, such as Alpha contracting. Examples of this trend include Defense Contract Audit Agency's (DCAA) August 2008 decision to cease all participation in Alpha contracting, and the April 2009 decision by the Air Force Materiel Command to rescind its Integrated Process Team (IPT) Price Negotiation and Agreement Guide. Although this rescission did not outright end Alpha contracting for the Air Force Materiel Command, it at the very least reduces the likelihood that Alpha contracting will be utilized.

This study provides valuable information to enable an understanding of the Alpha contracting process by analyzing the lessons learned from the use of the Alpha process. This research can be used by procurement contracting officers, contract specialists, program managers, and DoD contractors involved in DoD acquisitions. This study can provide an overall understanding of the Alpha contracting process and assist individuals when deciding whether the implementation of Alpha contracting would be beneficial in a given sourcing situation. Additionally, the study provides recommendations to help ensure successful implementation once the decision to utilize Alpha contracting has been made.

## **C. PURPOSE**

The purpose of this study is to examine the application of Alpha contracting in DoD procurement to assist individuals when choosing an appropriate acquisition strategy. Specifically, we plan to define what constitutes successful and unsuccessful Alpha contracting, as well as the contributing factors to both outcomes. Additionally, we will identify antecedents for and consequences of use, and variations of the processes

currently employed. This research will identify the utility of Alpha contracting, and explain its narrow usage to date. We will develop recommendations to address the factors that lead to successful Alpha contracting, as well as the barriers that arise once used. By reading this study, procurement contracting officers, contract specialists, program managers, acquisition officials, and DoD contractors will benefit by:

- Being able to choose a more appropriate acquisition strategy that fits the procurement situation;
- Using Alpha contracting more efficiently;
- Encountering fewer instances of unsuccessful application of Alpha contracting;
- Improve Alpha contracting practices;
- Increase awareness in the workforce of the Alpha contracting tool that should result in expanded use; and
- Improved buyer-supplier relationships based on cooperation, mutuality/shared goals, flexibility, co-dependence, transparency, and trust.

#### **D. RESEARCH QUESTIONS**

In order to achieve the objectives of this study, the following research questions will be addressed.

##### **1. Primary Research Question**

What constitutes/defines a successful/unsuccessful Alpha contracting process, and what factors are expected to contribute to success or failure of Alpha contracting?

##### **2. Secondary Research Questions**

- How often is Alpha contracting employed and why?
- Under what circumstances is the implementation of the Alpha contracting method appropriate?
- What are the advantages/disadvantages of the Alpha contracting process?
- What are the potential barriers to the utilization of the Alpha contracting approach?

## **E. SCOPE**

This study is focused on the use of Alpha contracting within the DoD. Other U.S. government departments and agencies were not examined in order to narrow the field of research and to limit the potential differences between department and agency-specific policies and regulations. This study focuses on sole-source production contracts and contract modification for programs exceeding the simplified acquisition threshold. Although the studied programs were production efforts, some programs include research and development efforts, to include engineering and manufacturing development (EMD).

## **F. METHODOLOGY**

This study was completed using a case study methodology. Robert Yin explains that questions that are more exploratory are likely to benefit from the use of case studies (Yin, 2005). Yin also states that the case study is a preferred method when studying a contemporary phenomenon within its real life context and where the behaviors cannot be manipulated. Case study involves direct observations and/or interviews of the subjects involved in the event being studied (Yin, 2005).

The qualitative data utilized in the development of this study was obtained through an examination of the relevant literature, and through the conduct of semi-structured telephonic, electronic mail, and personal interviews with individuals that have first-hand knowledge with Alpha contracting. The Alpha contracting team members that were interviewed included contracting officers, Defense Contract Management Agency (DCMA) personnel, program managers, cost analyst, and acquisition directors.

Yin states that by utilizing a multiple case study methodology the researcher is able to respond to a common criticism of single-case studies—that they are somehow unique and idiosyncratic and therefore have limited value beyond the circumstances of the single case (Yin, 2004). The cases chosen for inclusion in this study were selected because of their satisfaction of the following two criteria. First, the programs had at least

one sole-source contract that was awarded through the implementation of Alpha contracting. Second, only DoD programs were selected. To ensure adequate representation, the selection of programs included all services within the DoD.

## **G. ORGANIZATION OF STUDY**

The remainder of this study is organized as follows. Chapter II provides a detailed literature review of the Alpha contracting process, including a comparison with the traditional sole-source contracting process, as well as a review of noted Alpha contracting advantages and disadvantages. Further, relevant academic literature surrounding relational exchange, which are transactions that occur over a period of time where the participants are expected to gain complex satisfactions and engage in social exchange (Dwyer, 1987), is summarized in order to inform the inquiry and describe the theoretical underpinnings of the Alpha contracting phenomenon. Chapter III explains the research methodology and discusses the collection of data from the selected programs regarding the implementation of the Alpha contracting process. This chapter also addresses the interviews that were conducted to gather information from individuals that participated in the Alpha contracting for the selected programs.

In Chapter IV, the process of data analysis is explained and results are reported. Chapter V presents conclusions and makes recommendations for the implementation of the Alpha contracting process into future DoD acquisitions. Chapter V also provides recommendations based on lessons learned and best practices to improve Alpha contracting practices and to make those practices more efficient.

## **II. BACKGROUND**

### **A. INTRODUCTION**

In a post-911 era and with the ongoing efforts for OEF/OIF, there is increased emphasis to streamline the DoD contracting process and reduce PALT to provide the Warfighters with quality products and services at a fair and reasonable price as quickly as possible. DoD organizations have to achieve these goals despite decreasing workforces and steadily increasing workloads. DoD reduced the workforce in the 1102 Contracting job series from 23,013 in 1988 to 19,119 in 2007, representing a seventeen percent decrease over that time (Federal Acquisition Institute, 2008). Further, in October 2007, the Gansler Commission report found that DoD made significant reductions in the acquisition workforce despite the workload increasing in complexity and volume (Gansler, 2007).

As evidenced by numerous major programs, the problems noted by the Packard Commission in 1986 continue to be an issue within the DoD. For example, in 2004 the Army decided to cancel the RAH-66 Comanche helicopter program after spending \$6.9 billion over two decades to develop the helicopter. The program was conceived in 1983 and experienced cost overruns and schedule delays, with only two prototypes being built by the time it was cancelled (CNN, 2004). Interestingly, in 2000 the Comanche program utilized Alpha contracting to award a follow-on EMD contract worth over \$3 billion in an attempt to restructure the program. At the time of that contract award, the Alpha contracting approach was lauded as a great success (Huffstetler, 2000).

In response to recommendations made by the Packard Commission, and the internal Defense Management Review it stimulated, defense leaders began formulating specific actions to make the overall acquisition process faster, better, and cheaper (Hanks, 2005). Ultimately, this led to the modern acquisition reform (AR) in the DoD, which began in the early 1990s (Hanks, 2005). Throughout the 1990s, a large number of these actions were initiated to implement this reform, (Hanks, 2005), to include the



implementation of Integrated Product and Process Development (IPPD), joint government/industry Integrated Product Teams (IPTs), and Alpha contracting, which is also referred to as IPT Pricing or “One Pass” Pricing (Hanks, 2005).

The FAR guides the acquisition of these products and supplies. Based on the Competition in Contracting Act of 1984, the FAR requires the government contracting officers to promote competition to the maximum extent practicable. However, competition is not always feasible; sole-source acquisitions are a perpetual reality in industrial procurement. Sole-source acquisitions occur when the government can or must—for various legitimate reasons listed under 10 U.S.C. 2304(c)—procure the product or service from only one source. Due to the unique technologies utilized by the DoD, the ongoing efforts for OEF/OIF, and the continued consolidation of defense contractors, sole-source acquisitions continue to be a major aspect of DoD contracting. Alpha contracting was created out of the IPPD and IPT principles as a method to use a teaming process for proposal development and associated pricing during sole-source acquisitions (Will, 1999).

This chapter defines Alpha contracting, and compares the traditional DoD sole-source contracting process and the Alpha contracting process. In addition, this chapter provides a summary of the documented benefits and disadvantages associated with the Alpha contracting approach. In later chapters, this study will address whether there are any other benefits or disadvantages that are associated with Alpha contracting, as well as whether the documented benefits and disadvantages have been accurately portrayed in the literature. This chapter provides a summary of an Alpha contracting case study on the Joint Stand-Off Weapon (JSOW) (Nissen). Finally, the theory of relational exchange is summarized (Morgan & Hunt, 1994).

## **B. TRADITIONAL SOLE-SOURCE CONTRACTING PROCESS**

The FAR authorizes the government to proceed with sole-source contracting if one of the following seven situations applies to the procurement (FAR, 2008 §6.302).

- Only one responsible source and no other supplies or services will satisfy agency requirements
- Unusual and compelling urgency
- Industrial mobilization; engineering, developmental or research capability; or expert services
- International agreement
- Authorized or required by statute
- National security
- Public Interest

As required by FAR 6.303-1, if a procurement falls into one of the above-mentioned situations, the Contracting Officer shall not commence negotiations or award for a sole source contract unless written justification and approval is obtained. Most sole-source acquisitions are accomplished using a serial process as depicted in Figure 1.

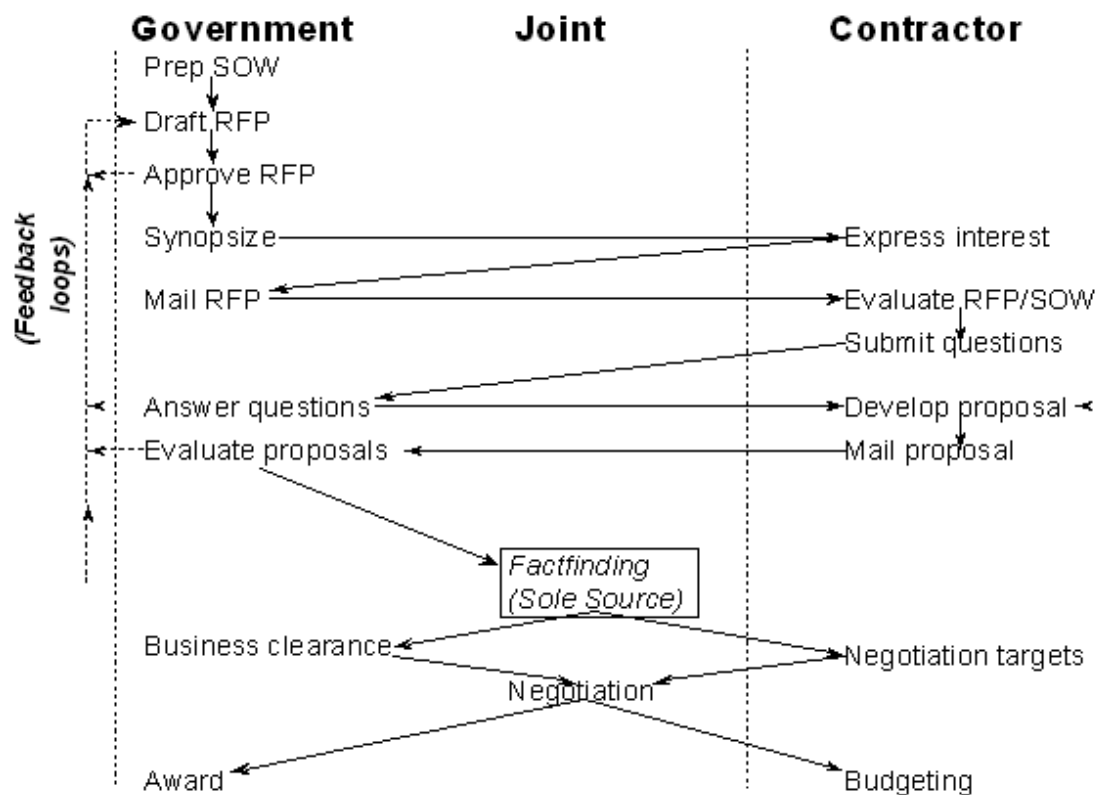


Figure 1. Traditional Sole-Source Contracting Process (From: Nissen, 2001)

Under the traditional approach, after the completion of market research and formulation of a sole-source acquisition strategy and acquisition plan, the program office will prepare an acquisition requirements package (ARP), to include the statement of work (SOW) and specifications. Once the ARP is complete, the program office will then provide it to the contracting office for review. Once the review by the contracting office is complete, the ARP is often returned to the program office to make any necessary changes. Upon finalization of the ARP by the program and contracting offices, a contract specialist will develop a draft request for proposal (RFP) based on the content of the ARP. The draft RFP will then go through a series of reviews, to include those by the contracting officer and legal counsel. Additionally, the contracting officer may choose to send a copy of the draft RFP to the contractor in an attempt to reduce the number of questions and comments for the finalized RFP. The draft RFP will then have to be revised based on any comments or questions that arise from these reviews. Once all concerns have been adequately addressed, the finalized RFP is sent to the contractor.

After receiving the RFP, the contractor will begin the proposal preparation, which includes submitting any questions regarding the RFP to the contracting office. These questions then have to be answered by the government in order to enable the contractor to prepare a proposal, and may require revisions to the RFP. Once each of the necessary supporting functions within the contractor's organization prepares the necessary data for the proposal, the contractor will develop and finalize the proposal, which then is submitted to the government.

The contracting officer will then request a technical evaluation and audit of the contractor's proposal. Typically, the DCAA will require the results of the technical evaluation before the audit can be finalized and submitted to the contracting officer. However, there are instances that the contracting officer requests that the audit be completed independently, which then places an additional pricing burden on the contracting office. Fact-finding may begin after the government receives the proposal to obtain clarifications or obtain additional supporting information from the contractor. The fact-finding process never truly ends until negotiations are complete and the contract is awarded.

The contracting officer and contract specialist will prepare the pre-negotiation memorandum and any necessary supporting documentation after they receive all necessary technical and pricing input, to include the technical evaluation and audit. The pre-negotiation memorandum establishes the government's initial negotiation positions and facilitates the contracting officer's determination of fair and reasonable price. FAR Part 15.406-1 requires the contracting officer to establish pre-negotiation objectives before the negotiation of any pricing actions. After all required approvals, which can vary according to the value of the action and agency-specific policies, are received for the pre-negotiation memorandum, the government may begin negotiations with the contractor. The contractor often will follow a similar procedure prior to entering into negotiations. The government's pre-negotiation memorandum provides an approved minimum and maximum objective for the negotiations, which will be utilized by the contracting officer as a guide throughout the negotiations.

Negotiations under the traditional approach are often viewed as a government versus contractor process with both teams working towards their pre-established targets, in what would typically be referred to as win-lose negotiations. In win-lose negotiations, one party is perceived as having done significantly better at the other party's expense, and the negotiation tends to be highly competitive with a large degree of mistrust on both sides (Contract Pricing Reference Guide). However, DoD has recently been stressing the importance of entering negotiations with a win-win strategy. In a win-win strategy, a mutually beneficial agreement is emphasized and both parties achieve long-term satisfaction with the results of the negotiation (Contract Pricing Reference Guide).

The win-win strategy is based on the process known as "pie expansion," which is a "collaborative process of creating mutually beneficial strategic outcomes between buyers and suppliers" (Jap, 1999, p. 461). The synergy from these collaborative efforts expand the joint benefit of the "pie" and gives each party an incrementally greater pie that could not be generated by either party in isolation (Jap, 1999). In this type of environment, the parties recognize and understand that each firm's success depends in part on the other firm (Jap, 1999). Jap (1999) proposed that when environmental demand—the extent to which the buyer and supplier outputs are requested by the

environment—is high, there is incentive to work closely together and make the necessary investments to create strategic outcomes to exploit available resources and opportunities effectively (Jap, 1999). In order to achieve a proposed win-win outcome, Garret (2005), proposes that a highly collaborative atmosphere be created, and that both parties must understand that the other party has different interests and needs and that the collaboration should be utilized to try to understand the other side's real needs.

The length of negotiations can vary greatly depending on the complexity of the requirement, discrepancies with the proposal, questioned costs, exceptions that may have been taken with proposed labor hour and rates, and other factors (Goodwin, 2002). After the completion of negotiations, the contractor submits a confirmation of negotiations and, if required under the Truth In Negotiations Act, a certificate of current cost or pricing data to the contracting officer. The process required the contractor to provide a certificate of current cost or pricing data may vary from a couple of days to over a month, depending on the size and complexity of the effort.

After receiving the certificate of current cost or pricing data, the contracting office has to develop the post-negotiation memorandum, which documents how the final negotiated price was established. In addition, the contracting office must prepare the final, negotiated contract. The finalized contract or contract modification is then submitted to the contractor for review and signature and then returned to the contract officer for award of the contract or contract modification.

Most information throughout the traditional contracting process is sent back and forth between the parties for review and revisions, often requiring numerous iterations. Using mostly asynchronous reviews, there is often minimal collaboration between the parties when sharing information and finalizing documents. As a result, the traditional approach can often take up to one year to complete, depending on the size and complexity of the effort.

### **C. ALPHA CONTRACTING PROCESS**

Alpha contracting is one of several names used to describe an innovative technique that takes the contracting process and converts it from a consecutive process

into a concurrent process (Meyer, 1997). As depicted in Figure 2, Alpha contracting utilizes the government-contractor collaboration throughout the entire pre-award process to jointly develop and price the requirements and scope of work. Alpha contracting is an innovative approach designed to streamline the acquisition process, and has displayed a drastic impact in reducing PALT for several major DoD programs (Goodwin, 2002).

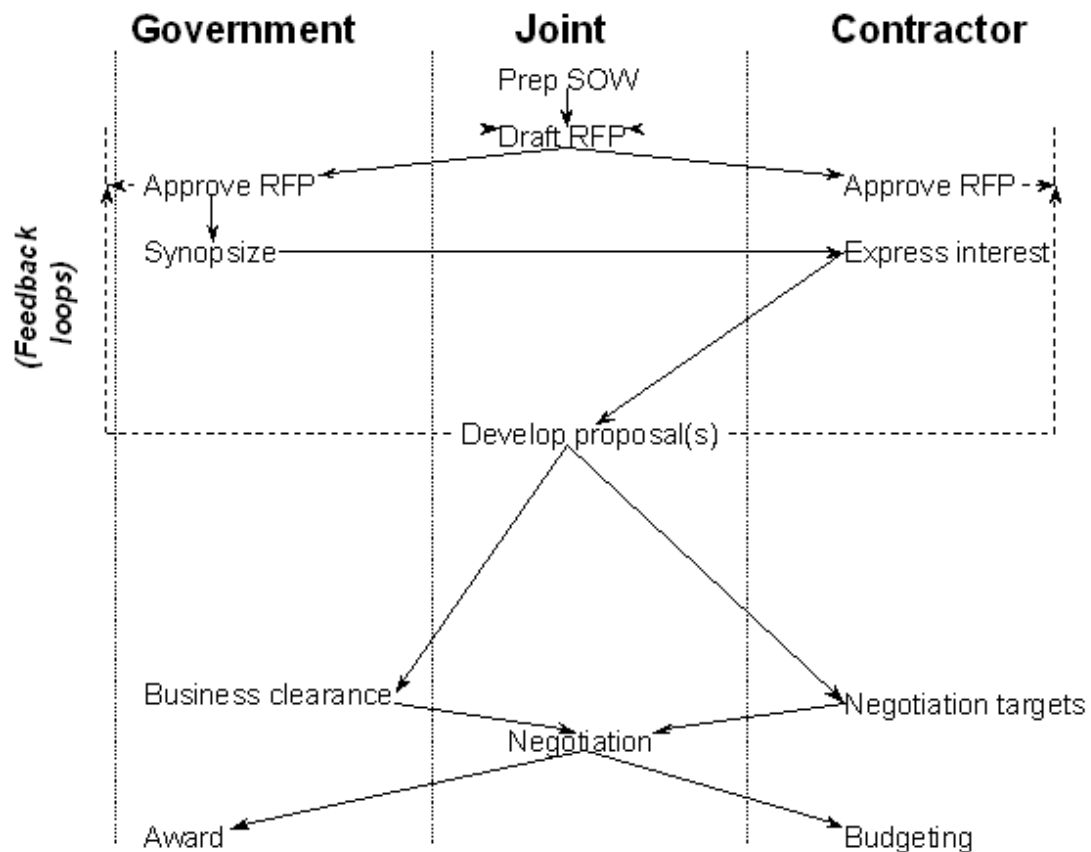


Figure 2. Alpha contracting Process (From: Nissen, 2001)

The Alpha contracting process utilizes an IPT consisting of government and contractor representatives. Typical government representatives on the IPT include the contracting office, program office, pricing analyst, DCAA, and DCMA. This IPT will first develop the documentation that is included as part of the ARP under the traditional process, to include the SOW, contract data requirements list, and specifications. In addition, the IPT will draft a RFP, which then will have to be approved by both parties.

After the RFP is approved by both parties, the IPT will jointly develop the proposal. By jointly developing the requirements and the proposal, the goal “is for both parties to be thoroughly familiar with all contract requirements, noting the build-up of costs, and to have the ability to voice any concerns early in the process” (Schutter, 1998, p. 14). After jointly developing the proposal, the Contracting Officer prepares the pre-negotiation memorandum and obtains the necessary approvals to commence with negotiations. Likewise, the contractor will prepare its negotiation targets and obtain approval to enter into negotiations.

The IPT then will reconvene to negotiate any remaining differences. The main focus of the IPT at this point is to produce a finalized contract that can then be awarded. As a result of early teaming in the Alpha contracting process, these negotiations should be much more streamlined than the negotiations that are conducted under the traditional contracting approach. Since the Alpha IPT jointly develops the cost as the technical details are jointly developed, the proposal more often resembles a negotiated contract than a traditional proposal, resulting in fewer details remaining to negotiate (Meyer, 1997).

#### **D. ALPHA CONTRACTING AS A SUBSET OF THE IPPD AND IPT PRINCIPLES**

Alpha contracting is truly a subset of the IPPD process, serving as the pre-award phase of IPDD (Meyer, 1997). In DoD Regulation 5000.2-R, Mandatory Procedures for Major Defense Acquisition Programs (MDAP) and Major Automated Information System (MAIS) Acquisition Programs, the DoD defines IPPD as a management technique that uses multidisciplinary teams to simultaneously integrate all essential acquisition activities with the goal of meeting cost and performance objectives. One of the key IPPD tenets is multidisciplinary teamwork through IPTs (IPPD Handbook, 1998). IPTs represent the multidisciplinary teams that are collectively responsible for delivering a defined product or process” (IPPD Handbook, 1998). The goal of IPPD is to use

“cooperative working among key stakeholders from all relevant disciplines from the earliest design phase to deliver a cost-effective producible, high-quality, supportable and ‘right the first time’ design” (Hanks, 2005, p. 22).

The IPPD process and utilization of IPTs closely resembles the methodology that industry is using to develop a process focus to combat a bureaucratic culture. Dean Clubb, President of the Defense Systems of Electronics Group, Texas Instruments, Inc., noted that businesses represent a hierarchical functional organization, in which the entire recognition and reward structure is designed around optimizing a functional expertise. Clubb goes on to state that this bureaucratic culture is not optimal for the incremental, fast, dynamic, ongoing change required by today’s customer (Clubb, 1996). As a result, industry is attacking the hierarchical culture by introducing teaming concepts designed to give businesses a process focus (Clubb, 1996).

The teaming models are designed to break down traditional organization boundaries and remold these functions into skills that are required by the process. These models obviously attack the heart and sole of traditional management practices. Moving a company from a functional improvement model to a process improvement model is a key in reducing the wasted motion involved in producing a product. (Clubb, 1996, p. 180)

In order to fully understand the Alpha contracting process it is essential to first understand the underlying principles that create the foundation for Alpha contracting. As a result, the concepts of relational exchange, buyer-supplier relationships, and institutional trust will be explained prior to discussing advantages, disadvantages and criteria for use of Alpha contracting.

## **E. THE ROLE OF RELATIONAL EXCHANGES AND BUYER-SUPPLIER RELATIONSHIPS IN ALPHA CONTRACTING**

### **1. Relational Exchanges**

Robert Morgan and Shelby Hunt define relationship marketing as “establishing, developing, and maintaining successful relational exchanges” (Morgan & Hunt, 1994). One of the ten discrete forms of relationship marketing is the buyer-supplier relationship



(Morgan & Hunt, 1994), under which Alpha contracting would be categorized. Although there are ultimately many contextual factors that contribute to the specific relationship marketing efforts, Morgan and Hunt theorize that the presence of relationship commitment and trust is central to successful relationship marketing, as opposed to power or the ability to condition others. Further, “when both commitment and trust—not just one or the other—are present, they produce outcomes that promote efficiency, productivity, and effectiveness. In short, commitment and trust lead directly to cooperative behaviors that are conducive to relationship marketing success” (Morgan & Hunt, 1994, p. 22).

Relationship commitment is characterized as when an exchange partner believes that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it (Morgan & Hunt, 1994). Trust is viewed as when one party has confidence in another’s reliability and integrity (Morgan & Hunt, 1994). Trust is considered so important to relational exchange that some view it as the cornerstone of the strategic partnership because parties will commit themselves to relationships characterized by the highly valued trust factor (Morgan & Hunt, 1994).

Morgan and Hunt also identified major precursors of relationship commitment and trust: (1) relationship termination costs and relationship benefits, both of which directly increase the level of commitment as they increase, (2) shared values that directly increases both commitment and trust, and (3) communication, which directly increases trust, and (4) opportunistic behavior, which decreases the level of trust (Morgan & Hunt, 1994). Although trust and commitment are components of the relationship development process, they are also highly desirable outcomes of the relationship. Other consequences of relationship commitment and trust are: (1) acquiescence and propensity to leave, which directly flow from relationship commitment, (2) functional conflict and uncertainty, which are direct results of trust, and (3) cooperation, which arises directly from both relationship commitment and trust (Morgan & Hunt, 1994). The following displays the antecedents and results of relationship commitment and trust.

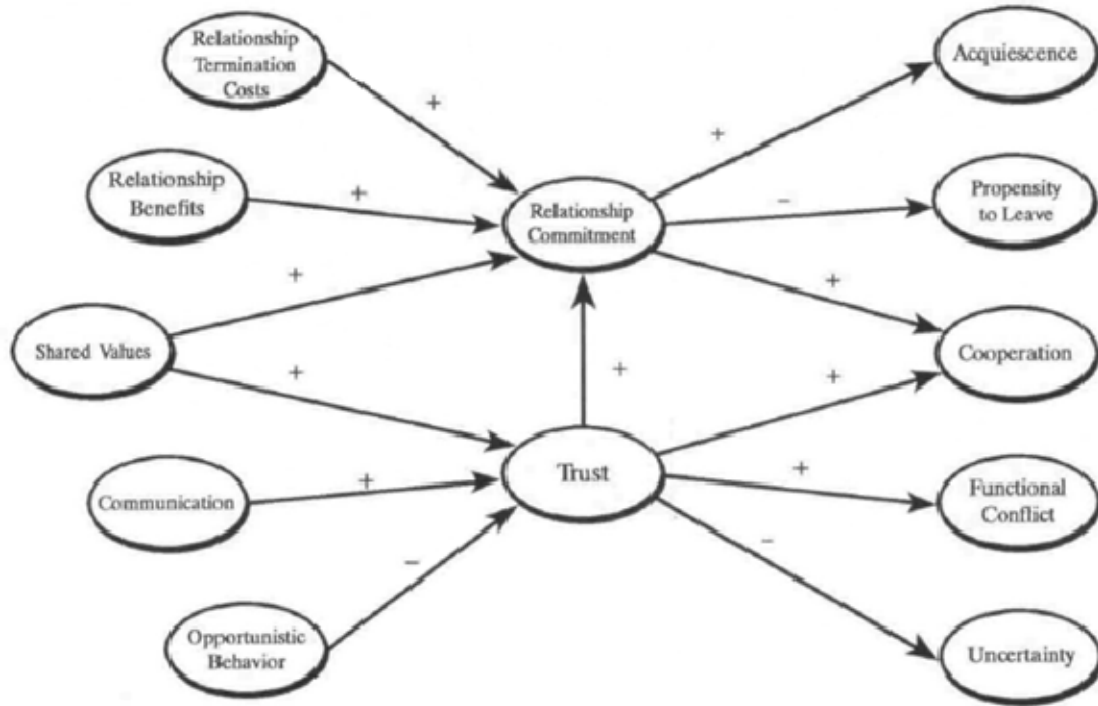


Figure 3. Antecedents and Result of Relationship Commitment and Trust (From: Morgan & Hunt, 1994, p. 22)

To foster commitment and trust, Morgan and Hunt suggest that organizations “attend to relationships by (1) providing resources, opportunities, and benefits that are superior to the offerings of alternative partners; (2) maintaining high standards of corporate values and allying oneself with exchange partners having similar values; (3) communicating valuable information, including expectations, market intelligence, and evaluations of the partner’s performance; and (4) avoiding malevolently taking advantage of their exchange partners” (Morgan & Hunt, 1994, p. 34).

After discussing the role of relational exchange and the importance of trust and commitment, it is necessary to examine the three basic types of buyer-supplier relationships. The following section will detail these three types of relationships, and the importance of early supplier involvement and collaboration, which are both underpinnings of Alpha contracting.

## **2. Buyer-Supplier Relationships**

There are three basic types of buyer-supplier relationships: transactional, collaborative, and alliance (Burt, 2003). Transactional relationships are an arm's-length approach where neither party is overly interested in the other party's well-being (Burt, 2003). Transactional relationships are the most common and basic type of relationship. The key difference between transactional relationships and collaborative relationships is the awareness of the interdependence and necessity of cooperation among the parties (Burt, 2003). Benefits from early supplier involvement often occur during collaboration and improvements in cost, quality, time to market, and the leveraging of supplier technology results (Burt, 2003). Additionally, it can be far easier to implement and manage continuous improvement with recognized interdependence and cooperation.

“The fundamental difference between collaborative relationships and supply alliances is the presence of institutional trust in alliances. The failure to develop and manage institutional trust is the principle reason that so many supply alliances fail” (Burt, 2003, p. 84). Alliances are created by cooperating firms to achieve one or more goals linked to their strategic objectives, and are accomplished through the pooling of skills and resources by the firms (Varadarajan, 1995). There can be numerous motives driving firms to enter into alliances, to include: 1) To broaden production lines or fill production line gaps; 2) Differentiate or add value to the product; 3) Reduce potential threat of future competition; 4) To enhance resource use efficiency, which includes lowering the manufacturing and marketing costs; and, 5) To learn new skills from alliance partners or enhance present skills by working with the partners.

## **3. Institutional Trust**

Burt states that “an ever-changing world requires frequent renegotiations between alliance partners. If there is no trust, the renegotiations are likely to be degenerative, antagonistic, and often in a win-lose relationship, at which point the alliance dies” (Burt, 2003, p. 84) Interpersonal trust is typically created first within an alliance, usually between the alliance champions and senior executives that created the alliance. However, for long-term survival, interpersonal trust is not enough, and a higher order of trust must

prevail (Burt, 2003). This higher level of trust is institutional trust, “where the parties have access to each other’s strategic plans in the area(s) of the interface. Relevant cost information and forecasts are shared. Risks and rewards are addressed openly. Informal agreements are as good as written ones” (Burt, 2003, p. 84).

This chapter has described and compared the traditional and Alpha contracting processes. Additionally, the underlying concepts of relational exchange, buyer-supplier relationships, and institutional trust have been explored. The advantages, disadvantages, and criteria for use that will be detailed in this chapter are a compilation of information retrieved from a review of Alpha contracting literature. However, due to relative lack of literature examining Alpha contracting, most of which explored only a single case, and the time gap between that literature and this study, one of the objectives of this research is to explore any differences from the documented advantages and disadvantages.

## **F. ALPHA CONTRACTING ADVANTAGES**

### **1. Reduced PALT**

An obvious advantage to using Alpha contracting is the reduced time it takes to award a contract for an acquisition (Meyer, 1997). Savings of four to nine months in PALT, or forty to fifty percent are common when utilizing Alpha contracting (Meyer, 1997). While the reduction of PALT, in itself, may be an advantage, it could result in negative side effects if the reduction is not properly achieved. For example, Clubb (1996) states that “Merely performing the same process steps faster—applying automation, employee overtime, or extended shifts, to mention a few of traditional methodologies—do not reduce costs or improve quality. These actions in fact drive up overhead, add cost, and do little to address our customers’ real needs” (Clubb, 1996). Instead, Clubb suggests to redesign a process focused on cycle time by removing the inefficient process steps and keeping the steps that are only absolutely required (value-added) (Clubb, 1996, p. 177).

Alpha contracting is designed not to merely reduce PALT, but to do so by removing non-required tasks and to streamline some of the remaining tasks within the contracting process. For example, each time a RFP, proposal or other contractual

document is revised, time and resources are required to change the document and gain internal approval. Once received by the other party, additional time is required to understand the changes, make distribution through the contractor's organization and respond to the changes. Each iteration consumes time adding to PALT (Nissen, 2001). The early collaboration between the government and contractor in Alpha contracting promotes a common understanding between the parties and reduces the chances of misunderstandings, errors, and mistakes propagating themselves into the formal documents; consequently, the number of required iterations is decreased (Nissen, 2001). The timesaving experienced through Alpha contracting is a result of the early collaboration between the government and contractor and subsequent decrease in iterations of formal contractual documents, as well as the government and contractor completing some tasks jointly, such as developing the RFP.

## **2. Decreased Overall Costs**

Alpha contracting decreases the overall costs for both the government and contractor, mainly as a function of the reduced PALT and decreased number of iterations for the contractual documents (Nissen, 2001). However, cost savings can also be realized because the Alpha contracting process often leads to a clearer definition of the requirements, often resulting in less post-award modifications, and helps the parties understand the cost drivers (Will, 1999). This can serve as a simple, but effective form of cost as an independent variable (CAIV) and enable the parties to agree on the reduction of costly requirements that are considered to be non-value added. CAIV is an acquisition reform instituted by the DoD to develop strategies for acquiring and operating affordable systems by setting aggressive but achievable cost objectives and managing achievement of these objectives. As key stakeholders decide on system performance and cost objectives, on the basis of cost-performance tradeoffs, the requirements and acquisition processes will make cost more of a constraint and less of a variable, while nonetheless obtaining the required military capability. The aim of CAIV is to achieve life-cycle cost savings through repeated tradeoff analysis at all stages (Hanks, 2005).

The cost savings is not exclusive to actual dollars saved, as evidenced by lower contract prices or reduced proposal preparation costs—there are also opportunity costs involved. For example, by reducing PALT, the organizations that have personnel dedicated to the formation of a contract can free up those resources sooner so that they may be utilized for other tasks. Further, trust among the parties involved in negotiations can result in another opportunity cost savings (Siemsen, 2002). For example, when working based on trust, efforts that would normally be dedicated to the monitoring of the other parties could be reduced and redirected into other productive efforts, resulting in a more efficient negotiation process (Siemsen, 2002).

### **3. Improved Relationship between Government and Contractor**

Alpha contracting requires a large amount of communication and teaming between the government and contractor (Nissen, 2001). Both parties must approach the Alpha process with the mutual understanding that they are teaming to jointly create a quality contract that is fair and reasonable for both parties. As shown through the role of relational exchange in Alpha contracting, the process will not work when there is an adversarial relationship between the government and contractor (Goodwin, 2002). As a result, Alpha contracting not only relies on trust and honesty, but if successful, also builds it between the parties.

### **4. Improved Contract Quality**

By jointly developing the SOW and RFP, the government and contractor are able to tailor the requirements and contract to ensure that only value-added requirements are included. In addition, the early collaboration enables the government and contractor to “have consistent expectations and have an achievable, executable program requiring fewer post-award modifications,” which can avoid and/or decrease costs (Meyer, 1997, p. 21). In contrast, under the traditional contracting approach it is common that the first time the government and contractor discuss their expectations and understanding of the requirements is after contract award at the post-award conference.

## **5. Facilitates Proactive Risk Management**

Through the teaming process and early supplier involvement, Alpha contracting can act as a risk management tool. The Alpha IPT can identify problems and risks before a contract is awarded and jointly resolve those problems and risks (Cuskey). As a result, value engineering can be implemented instead of value analysis. Value engineering is the “systematic study of every element of cost in a material, item of equipment, service, or construction project to ensure that the element fulfills a necessary function and at the lowest possible total cost” (Burt, 2003, p. 224). Value engineering occurs during the initial engineering design stage, whereas value analysis, which in an operational sense is the same process, occurs during production activities (Burt, 2003).

Alpha contracting has displayed the ability to be a valuable contracting tool that provides the following five advantages: 1) Reduced PALT; 2) Decreased overall costs; 3) Improved relationship between the government and contractor; 4) Improved contract quality; and, 5) Facilitates risk management. Despite the advantages of Alpha contracting, there are several disadvantages that an individual must be aware of prior to deciding to utilize Alpha contracting. Those documented disadvantages are provided in the following section.

## **G. ALPHA CONTRACTING DISADVANTAGES**

### **1. Requires a Large Investment of Upfront Resources**

Alpha contracting requires the IPT participants to be away from their offices for extended periods of time to ensure that they are adequately focused on the Alpha process. Typically, Alpha contracting meetings take place at the contractor’s facility. “While overall manpower requirements should be less over the full contract life, the need for dedicated personnel for weeks or months at a time during contract development creates difficulties for organizations with limited staffs and other demands to satisfy at the same time” (Meyer, 1997, p. 21). This requires organizations to position themselves to cover the remaining workload for the individuals that will be participating in the Alpha contracting acquisition. Additionally, organizations must be able to fund the overtime and

temporary duty (TDY) costs associated with the extended travel periods. Although a benefit to using Alpha contracting is the decreased total costs, those costs savings are not necessarily seen early in the program. For example, if some of those costs savings are derived from the reduction of non-value added requirements, those savings may be amortized into the contract price and realized across the life of the contract, whereas the overtime and TDY costs represent immediate costs that cannot be amortized through the life of the contract. This large upfront investment of resources may place an extraordinary strain on the organizations that participate in the Alpha IPT.

## **2. Difficult to Maintain the IPT**

Once the IPT is developed and Alpha contracting commences, it becomes imperative that the team members remain with the team throughout the process. Introducing or replacing team members can disrupt the process and make it difficult for all participants to get back on schedule (Goodwin, 2002). However, since Alpha contracting often requires individuals to be dedicated solely to the Alpha contracting process for weeks at a time and, as mentioned above, requires extended periods of travel for some participants, it is very difficult to ensure that all team members will be available throughout the entire process. This could reduce the effects of some of the advantages of utilizing Alpha contracting. For example, the relationship between the parties may be strained if individuals are revolving in and out of the Alpha contracting process, since this would require a learning curve for the new individuals and may also alter the group dynamics. While changing group dynamics can be a positive at some times, it could become frustrating to both parties and make it difficult to reach agreements if it repeatedly occurs.

## **3. Requires an Organizational Culture Change, Management Buy-in, and Institutional Trust**

The traditional contracting process has been utilized much longer and much more often than Alpha contracting. Although the exact reasons are unknown, most individuals have not participated in Alpha contracting. Some possible reasons for the lack of widespread adoption of Alpha contracting are the lack of awareness and/or understanding



of the process, unwillingness by practitioners to deviate from the status quo, or an entrenched belief that Alpha contracting would not be appropriate or successful for the specific acquisition. As a result, in order to participate in successful Alpha contracting, individuals must be willing to learn Alpha contracting and change from the traditional approach. This means that participants will have to move out of their comfort zone and make necessary sacrifices, such as traveling for extended periods and participating in a labor-intensive process. In addition, management must buy into the Alpha contracting approach, commit the increased upfront resources, and empower decision makers within the IPT, such as the contracting officer, with the authority to make decisions and agreements on behalf of that organization. If decision makers do not have the authority to make agreements, the Alpha contracting process may suffer schedule setbacks and trust between parties may be reduced.

This section discussed the three documented disadvantages of Alpha contracting, which are: 1) Requires a large investment of upfront resources; 2) Difficult to maintain the IPT; and, 3) Requires an organizational culture change, management buy-in, and institutional trust. In addition to these three disadvantages, an individual considering the implementation of Alpha contracting must be cognizant that Alpha contracting is not designed for use on all types of programs. The following section will outline the Alpha contracting criteria for use.

#### **4. Criteria for Use**

Although there is little information available regarding the criteria for use of Alpha contracting, the information that is available indicates that Alpha contracting is not appropriate in all circumstances. The documented criteria for use of Alpha contracting include: 1) Sole source effort; 2) Complex, high dollar, and high interest program; 3) There is an on-going requirement; 4) There is a need to maintain or manage the business relationship; 5) There is a need to improve or create a mutual understanding of the requirements or risks; and 6) Adequate resources are available (Cuskey & Nissen,

2001). Since there is little information available, the objectives of this research include examining why Alpha contracting is employed and under what circumstances it is appropriate.

Although there is a minimal amount of information available regarding the advantages, disadvantages, and criteria for use, there has been a detailed review of a single case, the Joint Stand-Off Weapon (JSOW), which examined the benefits of Alpha contracting and the factors that were considered to be contributors to, or determinates of successful use. The following section will provide a summary of the JSOW program and case study.

## **H. JOINT STAND-OFF WEAPON (JSOW) PROGRAM ALPHA CONTRACTING CASE STUDY**

### **1. Program Background**

The JSOW is an autonomous, air-launched glide weapon designed to attack a variety of ground targets from standoff range. The JSOW is a joint program between the U.S. Navy and the U.S. Air Force, with the U.S. Navy acting as the program lead. JSOW was developed to be integrated with several current and future aircrafts, including the F/A-18, F-16, B-2, and B-52. JSOW is categorized as an Acquisition Category (ACAT) ID DoD program, representing a complex, software-intensive weapon system. Early into the JSOW program, affordability was identified as, and continues to represent, a critical program element. These affordability goals have driven a number of key design and production decisions for the program and they continue to drive difficult choices for the program (Nissen).

A cost-reimbursable, EMD contract was awarded to Raytheon Texas Instruments (TI) Systems in the amount of \$188M for the development of the baseline JSOW in June 1992. Less than five years after the milestone II acquisition decision memorandum (ADM), which authorized the program to begin EMD, JSOW received approval to enter low-rate initial production (LRIP). The LRIP Lot 1 was originally priced on a cost-

reimbursement arrangement as an option under the EMD contract. The program office then decided to negotiate a second LRIP lot, LRIP Lot 2, on a sole source basis using the Alpha contracting process.

## **2. JSOW Alpha Contracting Case Study**

Dr. Mark E. Nissen conducted a case study on the Alpha contracting process utilized for LRIP Lot 2 (Nissen). Among some of the areas discussed as part of this case study were the benefits of Alpha contracting for the JSOW program and a review of the factors associated with the Alpha contracting process that were considered to be important contributors to, or determinates of successful use of Alpha contracting. The following will present a summary of Dr. Nissen's findings within this case study, which will form the basis for the program reviews for the second phase of this chapter.

### ***a. Benefits of Alpha Contracting for the JSOW Program***

Dr. Nissen found that the JSOW benefits derived from Alpha contracting were difficult to quantify. The cycle time for the contracting process was shorter through Alpha contracting than through the traditional process that was previously utilized; however, the JSOW program was also in a more mature stage of development when Alpha contracting was implemented. Additionally, Dr. Nissen found that although the government and contractor team members spent less total time performing the Alpha contracting process, the program management office staff tends to be relatively fixed in size. As a result, personnel costs that are saved through Alpha contracting are reinvested in other areas of contracting and program management. While this reinvestment of time and energy can provide some tangible advantage to the contracting and program management offices, it is difficult to measure the quantifiable benefits.

Other identified benefits included improved quality of the contract documentation, increased understanding by team members of key programmatic, technical and contractual issues, and the development of professional, trust-based

relationships, which carry over into program execution to improve the character of work and atmosphere of cooperation. These benefits, while difficult to quantify, are well established in academic literature; hence, should not be ignored.

***b. Key Contextual Factors and Managerial Decisions of JSOW***

Dr. Nissen's case study identified a dozen factors associated with the Alpha contracting process that were considered to be important contributors to, or determinants of successful Alpha contracting. These dozen factors, along with the definitions of those factors, are provided in Figure 4.

Factor	Concept/Definition
Competition	Whether competition is required
Program phase	Concept, Risk Reduction, EMD, Production
Contract type	Cost, fixed price, other
ACAT designation	ID, IC, II, III, other (including MAIS designators)
System class	Aircraft, missile, ship, tank, computer, other
Program complexity	Number of interrelated product variants, FMS, coproduction, other factors
Geographical separation	Number of different states/countries in which key program personnel are located
Alpha experience	Whether (and extent to which) alpha contracting has been accomplished previously by same team
Budget/schedule pressure	Whether (and extent to which) the program budget and schedule are out of line with proposal values
Program Management Office (PMO) commitment	Whether (and extent to which) the program manager is committed to alpha contracting
Contractor openness	Whether (and extent to which) the contractor is committed to alpha contracting and teamwork
Technical IPTs	Whether (and extent to which) the team employs IPTs for technical development and/or production

Figure 4. Key Process and Contextual Factors (From: Nissen)

The case study then reviewed these factors and separated them by whether or not they are variable or fixed, and then separated them further by the locus of control (i.e., internal versus external). This enabled the factors to be sorted into one of four quadrants. The quadrants were defined as follows: 1) Quadrant I—recurring PMO decision variables (i.e., same variables may be revisited on each contracting cycle); 2) Quadrant II—fixed PMO decision variables (i.e., once decisions are made, these factors tend to remain fixed); 3) Quadrant III—fixed externally-imposed contextual factors (i.e., important, but outside PM direct control); and 4) Quadrant IV—externally-determined variables (i.e., variable, but not directly within Program Manager (PM) direct control).

Locus of Control	Variable	Fixed
<u>Internal:</u>	(Quadrant I)	(Quadrant II)
	Contract type	Alpha experience
	Competition	Technical IPTs
	PMO commitment	
<u>External:</u>	(Quadrant IV)	(Quadrant III)
	Program phase	ACAT
	Budget/schedule pressure	System
	Contractor openness	Complexity
		Geography

Figure 5. Clustering of Factors (From: Nissen)

Finally, the case study proposed a simplistic scheme for scoring the likelihood of Alpha contracting success for a particular program, based solely on the experiences from the JSOW program. This scoring scheme is as follows: a) score +1 if a factor contributes to alpha contracting success; b) score -1 if a factor inhibits or is neutral to alpha contracting success. The case study then provided a rough interpretation of this scoring scheme as follows: the higher the score, the greater the likelihood of alpha contracting success, and negative scores (i.e., below zero) may signal potential problems with the alpha approach. The following table provides the scoring for the JSOW program.

Quadrant	Factor	Operationalization	LRIP Lot 1	LRIP Lot 2
QI:	Contract type	Cost vs. fixed price	+1	-1
	Competition	Sole-source vs. competitive	+1	+1
	PMO commitment	PM committed vs. ambivalent	+1	+1
Q2:	Alpha experience	Previous experience (yes vs. no)	+1	+1
	Technical IPTs	Currently employed (yes vs. no)	+1	+1
QIII:	ACAT	ACAT II/III vs. ACAT I	-1	-1
	System	Missile vs. other class	-1	-1
	Complexity	Simple vs. complex program	-1	-1
	Geography	Collocated vs. dispersed	-1	-1
QIV:	Program phase	Production vs. EMD	+1	+1
	Budget/Schedule pressure	Low vs. high	+1	-1
	Contractor openness	Open vs. closed	+1	+1
	<b>Total Score:</b>		+4	0

Figure 6. JSOW Alpha Contracting Process Scoring (From: Nissen)

### 3. Summary

The JSOW case study provides data from a real-life case that integrates factors deemed to be most important into a preliminary Alpha contracting process decision model. Since this research involved a single case, it provides a baseline for further research. In the next chapter, additional programs are researched and compared regarding their utilization of the Alpha contracting process to identify and formalize the key contractual factors and managerial decisions that lead to success and failure.

#### I. SUMMARY

The traditional contracting approach is a serial and iterative process that may take a year or more to complete. Additionally, the traditional contracting process is often costly, often adversarial, and can strain relationships between the government and

contractor. With the continued emphasis on streamlining acquisitions and the ongoing efforts associated with OEF/OIF, the use of Alpha contracting offers an innovative approach to acquiring products and services more efficiently and most importantly, more effectively.

The Alpha contracting process is an approach based on collaboration between the government and contractor. The IPT established to perform the Alpha contracting focuses on completing activities concurrently and avoids repetitive efforts. The teaming of the government and the contractor “enables both parties to work hand-in-hand during this process and to share knowledge due to mutual trust and honesty, which can result in a rewarding experience and positive results for all involved” (Goodwin, 2002, p. 20).

Alpha contracting can dramatically reduce PALT, commonly by four to nine months (Meyer, 1997). Additionally, the use of Alpha contracting can avoid and save costs and lead to a better relationship between the government and contractor when compared to the traditional contracting approach (Meyer, 1997). However, Alpha contracting requires a large upfront investment of resources (Meyer, 1997), requires skilled personnel, and likely will not be successful unless there is an organizational cultural change, to include management buy-in. As a result, the use of Alpha contracting is not appropriate or feasible for all types of acquisitions.

The next chapter explains the methodology and discusses the collection of data from the selected programs regarding the implementation of the Alpha contracting process. It also addresses the interviews that were conducted to gather information from individuals that participated in the Alpha contracting for the selected programs.

### **III. METHODOLOGY**

#### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to describe the research objectives and methods used in our study. First, this chapter will describe the case study methodology utilized for our analysis. Second, the chapter will depict the data collection process and explain how reliability and validity concerns were addressed.

#### **B. RESEARCH OBJECTIVES**

The purpose of this study is to examine the application of Alpha contracting in DoD procurement to assist individuals when choosing an appropriate acquisition strategy. Specifically, we plan to define what constitutes successful and unsuccessful Alpha contracting, as well as the contributing factors to both outcomes. Additionally, we will identify antecedents for and consequences of use, and variations of the processes currently employed. In order to achieve the objectives of this study, the following specific research questions will be addressed.

- What constitutes/defines a successful/unsuccessful Alpha contracting process, and what factors are expected to contribute to success or failure of Alpha contracting?
- How often is Alpha contracting employed and why?
- Under what circumstances is the implementation of the Alpha contracting method appropriate?
- What are the advantages/disadvantages of the Alpha contracting process?
- What are the potential barriers to the utilization of the Alpha contracting approach?

#### **C. METHODOLOGY**

This study was completed using a case study methodology. Robert Yin explains that questions that are more exploratory (*how* or why *did* something happen?) are likely to benefit from the use of case studies (Yin, 2005). The case study is a preferred method



when studying a contemporary phenomenon within its real life context and where the behaviors cannot be manipulated (Yin, 2005). The case study methodology involves direct observations and/or interviews of the subjects involved in the event being studied (Yin, 2005). It is appropriate for this study since the goal of the research is to explain why Alpha contracting tends to be successful or unsuccessful and cannot be answered through experimentation or the use of quantitative data due to lacking available data points to establish normality of data.

This study utilized a multiple case study methodology to try to identify trends and patterns across the various cases. Yin states that by utilizing the multiple case study methodology, the researcher is able to respond to a common criticism of single-case studies—that they are somehow unique and idiosyncratic and therefore have limited value beyond the circumstances of the single case (Yin, 2004). The cases chosen for inclusion in this study were selected because of their satisfaction of the following two criteria. First, the programs had at least one sole-source contract that was awarded through the implementation of Alpha contracting. Second, only DoD programs were selected. To ensure adequate representation, the selection of programs included all military departments within the DoD. Within these two criteria, a convenience sample of cases was chosen based on familiarity of the researchers with known cases, access to informants, and willingness of informants to participate.

#### **D. VALIDITY AND RELIABILITY**

Validity is broken down into three categories by Yin: 1) Construct validity, which involves establishing correct operational measures for the concepts being studied; 2) Internal validity, which is the establishment of causal relationships; and 3) External validity, which defines the realm to which the study's findings can be generalized. As with any empirical research, case study data must be both valid and reliable.

To ensure reliability and validity, Yin (2004) offers the follow case study techniques. To ensure construct validity, multiple sources of evidence should be used, having key informants review the draft case study report, and establishing a chain of evidence. To guarantee internal validity, a researcher should utilize pattern matching,

logic models, address rival explanations, or perform explanation building. When using multiple case studies replication logic should be used to ensure external validity. The use of a case study protocol and developing case study databases are recommended to ensure reliability.

In this case study, multiple types of programs were examined and individuals from various disciplines who had first-hand experience of the Alpha contracting process for those programs were interviewed to help ensure validity. An interview protocol, located at Appendix A, was developed to ensure that interviews would adequately address the research objectives. This protocol was developed based on the primary and secondary research questions; adding questions that we believed would lead the interviews in a direction that would enable us to obtain adequate information to answer those primary and secondary questions.

All informants were initially contacted via email, wherein the researchers briefly discussed the intent of the project and the degree of participation on behalf of the informant. Due to scheduling conflicts, several informants requested the interview questionnaire to complete at their convenience. The researchers sent a second email to 3 of the informants to request additional information or clarify a few responses. However, due to the length of time between the Alpha experience and the interview, the informants were unable to provide any additional information. One informant completed the interview via telephone. The information was not transcribed verbatim, as a recording device was not readily available to the researchers. The field notes were seven pages long, approximately 2,607 words counted. After the interviews were completed, the researchers had informants review the documented responses, to ensure that their responses were accurately captured.

A cross-case meta matrix was established to enable the researchers to cluster the information, note patterns, and identify comparisons. To aid in identifying patterns and to increase reliability, the researchers independently coded each informant's response. After the coding was complete, the researchers compared the separate coding for reliability and established patterns.

## E. DATA COLLECTION

The qualitative data utilized in the development of this study was obtained through an examination of the relevant literature, and through the conduct of semi-structured telephonic, electronic mail, and personal interviews with individuals that have first-hand knowledge with Alpha contracting. The Alpha contracting team members that were interviewed included contracting officers, price and cost analysts, Defense Contract Management Agency personnel, program managers and acquisition directors. Technical leads were contacted to participate in the interview, however some had either retired or left the government, or felt they were not part of the decision-making process and therefore would not be able to fully participate in our study (refusal). In an attempt to elicit thorough and honest information, informants were notified prior to interviews that their responses would be confidential. The following provides the demographic background of the informants.

- **Informant 1:** Informant 1 is a female contracting officer for the Army with over 27 years of contracting experience.
- **Informant 2:** Informant 2 is a female contract specialist for the Army with 16 years of contracting experience.
- **Informant 3:** Informant 3 is a female group chief for the Army with 35 years of experience. As a group chief, this informant is responsible for supervising approximately 5 contracting teams, with each team typically consisting of one contracting officer and 3-5 contract specialists.
- **Informant 4:** Informant 4 is a male contract price and cost analyst for the Army with 29 years of experience. As a price and cost analyst, this informant is responsible for providing price and cost analysis support to an Army contracting center for complex programs.
- **Informant 5:** Informant 5 is a female group chief for the Army with 31 years of experience. As a group chief, this informant is responsible for supervising approximately 5 contracting teams, with each team typically consisting of one contracting officer and 3-5 contract specialists.
- **Informant 6:** Informant 6 is a male program manager for the Air Force who has 18 months of program management experience.

- **Informant 7:** Informant 7 is an associate director of contracting for an Army contracting center. This informant has over 15 years of contracting experience.
- **Informant 8:** Informant 8 is a male price and cost analyst for DCMA with 29 years of experience.

It is difficult to identify programs that utilized Alpha contracting because there is no established tracking mechanism to identify efforts that utilized Alpha contracting versus the traditional contracting process. As a result, the programs selected for this study represented a convenience sample for which we were able to identify that Alpha contracting was used and knowledgeable and willing informants were located. The following summarizes eight programs that utilized the Alpha contracting process and were examined as part of this study.

#### **1. Mobile Subscriber Equipment (MSE) Shelter Overhaul Phase III and Phase IV**

This program required the cyclic and catastrophic overhaul of battlefield communications shelters and their associated hardware used in the U.S. Army's MSE communications system. The shelters are completely populated with communications equipment, which are also tested and repaired as necessary. The shelter overhaul effort included initial testing of the shelters and their associated equipment, removal of the equipment, overhaul or repair of the equipment, structural and cosmetic refurbishment of the shelters, reinstallation of the equipment, and final operational testing of the overhauled shelter. The MSE overhaul program is an ACAT III program. The Phase III contract was awarded on December 30, 1999 for the overhaul of up to 300 shelters. The Phase III ceiling, to include all options, was established at \$73.3M on a cost-plus-fixed-fee basis. The Phase IV contract was awarded on January 2005 for the overhaul of up to 300 shelters. The Phase IV ceiling, to include all options, was set at \$140M on a cost-plus-fixed-fee basis.

## **2. Advanced Threat Infrared Countermeasure/Common Missile Warning Program (ATIRCM/CMWS)**

The ATIRCM/CMWS program, which is the core element of the Suite of Infrared Countermeasure concept, is an U.S. Army ACAT IC program. The ATIRCM/CMWS contract was awarded on May 19, 2006 as a five year indefinite delivery indefinite quantity contract with a ceiling of \$1.4B. The ATIRCM/CMWS program is satisfying the Army's requirements for enhanced aircraft survivability against Infrared (IR) guided threat missile systems. The ATIRCM/CMWS is the Aviation IR Survivability capability provider for the future force. It will also complement and supplement other Aircraft Survivability Equipment to provide broad-spectrum platform protection. Enhancements will continue to significantly reduce aircraft and aircrew casualties and permit extended operations within battle space environments populated with threat missiles.

## **3. C-130 Center Wing Replacement Program**

The C-130 fleet flies several robust mission profiles that are more severe than the original C-130 design. Recent aircraft structural integrity program analyses indicated that the Center Wing is nearing its structural service life earlier than previous projections. The Center Wing Replacement Program was essential to the mission of Combat Delivery, Special Operations and Search and Rescue Forces. The C-130 is an ACAT IC program, and this center wing replacement contract was awarded in March 2007 and is anticipated to end in January 2013. The contract is a firm fixed price, time and materials, and cost-plus-fixed-fee indefinite delivery indefinite quantity contract with a ceiling of \$622.6M.

## **4. AN/TPQ-36 Firefinder Radar (V)8 Electronics Upgrade Program**

The AN/TPQ-36 (V)8 Firefinder radar system is a mobile, phased-array radar system that automatically locates hostile mortar, rockets, and artillery projectiles. Firefinder uses weapon location software and highly specialized algorithms to track mortar and artillery type targets while discriminating against aircraft, birds, and

battlefield clutter. Each system consists of an Operations Control Group (OCG)/Shelter that is manufactured by Northrop Grumman and an Antenna Transceiver Group (ATG) and Generator Power Group that are produced by Thales Raytheon Systems.

The Firefinder Radar was initially developed in the 1970s and continues to be used by the U.S. Army, U.S. Marine Corp, and numerous Foreign Military Sales customers. Since then, Firefinder has been upgraded numerous times. In December 1992, Northrop Grumman was competitively awarded a LRIP contract for the (V)8 Firefinder OCG. In March 1996, the U.S. Army Communications and Electronics Command recognized the need to perform an electronics upgrade to the (V)8 Firefinder OCG to replace components that were rapidly approaching obsolescence with standard Common Hardware/Software and/or Commercial Off-the Shelf equipment. This upgrade effort replaced the OCG with an Operations Central (OC) housed in a Lightweight Multipurpose shelter, which contained major subsystems such as the Control/Display Terminal, radar processor, Environmental Control Unit, and Gas Particulate Filter Unit. The (V)8 Electronics Upgrade kit was comprised of four sub-kits: 1) OC kit, 2) ATG kit, 3) Equipment Trailer Group kit, and 4) High Mobility Multipurpose Wheeled Vehicle Assembly (V)8 system kit.

The Alpha contracting process was implemented to negotiate the contract for the electronic upgrade program. The contract included both Firm Fixed Price and Time and Materials line items, and called for both hardware and services. The basic contract called for new electronics upgrade kits, retrofit of LRIP systems, initial spares to support the electronics upgrade kits, training systems, and engineering and field support services. The contract also included two option years for electronics upgrade kits and initial spares and engineering and field support services. The basic contract was awarded on 19 August 1996 for \$19,522,043.

## **5. AN/ZPQ-1 Tactical Endurance Synthetic Aperture Radar (TESAR)**

The AN/ZPQ-1 TESAR is a compact, lightweight, low-cost surveillance radar that operates with associated ground station displays. The focused imagery is formed onboard the host aircraft, compressed and sent to the ground control station over a data

link. The system provides pilots or unmanned aerial vehicles (UAV) with high-resolution imagery over all types of terrain, in all weather, day or night. TESAR offers two modes of operation. Mode 1 provides a non-centered strip map, meaning that it moves with respect to the aircraft motion. Mode 2 is the classic strip map mode, which means mapping occurs over a predetermined scene centerline, irrelevant of the aircraft direction.

The TESAR system achieved operational status during successful deployment in Hungary aboard the Predator UAV in March 1996 as part of Operation Joint Endeavour. The requirement for additional systems arose in 1997, leading to the decision to implement the Alpha contracting approach, which led to the award of a \$16.2M contract to Northrop Grumman for nine TESAR systems, two spares, and a set of ground control station displays.

## **6. Intelligence Electronic Warfare Common Sensor (IEWCS)**

The IEWCS, a hybrid contract with Firm-Fixed Price, Time & Materials and Cost-Plus-Fixed-Fee portions, was the future division-level signals intelligence electronic support and electronic attack system. The IEWCS was intended to provide targeting, detection, identification, electronic attack and location reports in near real time to division and brigade commanders. It was designed to pass targeting data in support of a quick fire or sensor-to-shooter link.

IEWCS was developed to replace six separate and unique signals intelligence/electronic warfare (SIGINT/EW) legacy systems. Each of these legacy systems were technically limited in their ability to deal with the frequency spectral coverage of newer threat emissions and with advanced forms of modulation, such as spread spectrum. These legacy systems also lacked any meaningful degree of interoperability among themselves or with other Army battlefield systems. Furthermore, although each legacy system performed a functionally similar SIGINT/EW mission, they had virtually no commonality of hardware, firmware, or software. As a result, each system required somewhat different operations, logistics support and facilities.

## **7. Enhanced Position Location Reporting System (EPLRS)**

The EPLRS, an ACAT II program with an estimated value of \$46.5M and 5-year period of performance, provides a mobile wireless data communications backbone for the Army's Tactical Internet, provides embedded situational awareness/position navigation, and is a common system for Army, Air Force, Navy, and Marine Corps Warfighters. EPLRS is a primary enabler for network centric warfare.

EPLRS supports the Army's Transformation Brigades, and is interoperable with U.S. Air Force, U.S. Marine Corps and U.S. Navy. EPLRS mobile networks are used by Army Battle Command System(s) and Force XXI Battle Command Brigade and below host computers for situational awareness and Command & Control.

EPLRS currently consists of a Network Control Station and radios that can be configured for single-person, vehicular, and airborne use. EPLRS uses a time-division, multiple-access communications architecture to avoid transmission contention along with frequency hopping, error detection, and correction with interleaving. It also uses spread spectrum technology to provide jamming resistance.

Within the Army and Marine Corps, EPLRS is the digital backbone for the ground forces, which are linked via the Lower Tactical Internet. The Navy primary use of EPLRS is to provide Over-the-Horizon location and tracking of amphibious assault and logistics craft in support of Marine operations. Within the Air Force, EPLRS is the data communication system used by the Situational Awareness Data Link, which provides the aircraft commander a heads-up display of friend EPLRS position on the ground and some aircraft status information.

## **8. Single Channel Ground and Airborne Radio System (SINGARS)**

SINGARS, a Firm-Fixed Price ACAT IC program with an estimated value of \$252M and 3-yr period of performance, is a newer family of Very High Frequency—Frequency Modulated combat net radios, which provides the primary means of command



and control for Infantry, Armor and Artillery Units. SINCGARS provides commanders with a highly reliable, secure, easily maintained Combat Net Radio that has both voice and data handling capability in support of command and control operations.

## **F. SUMMARY**

This chapter described the research objectives and methods used in our study. In Chapter IV, a summary of the responses provided to each interview question is presented, which is then followed by the data analysis. Chapter V presents conclusions and makes recommendations for the implementation of the Alpha contracting process into future DoD acquisitions. Chapter V also provides recommendations based on lessons learned and best practices to improve Alpha contracting practices and to make those practices more efficient.

## **IV. RESULTS**

### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to provide a summary of the interview responses and subsequent data analysis. First, this chapter will summarize the interview question responses. Second, the chapter will discuss the data analysis processes utilized.

### **B. SUMMARY OF INTERVIEW RESPONSES**

- Responses to Question 1—What is your definition of Alpha contracting?

There was not much of a difference in definitions provided for Alpha contracting. The common definition was that Alpha contracting is a contracting technique that employs a teaming approach between the government and contractor to reach a negotiated agreement for contract award. All of the informants mentioned the concept of working collaboratively or teaming to achieve a negotiated agreement. However, the informants did not distinguish whether their definitions were in the context of pre-award contract negotiations or post-award modification negotiations.

- Response to Question 2—What constitutes/defines a successful Alpha contracting process?

All informants focused on two main concepts when defining a successful Alpha contracting process: schedule and cost. All informants stated that successful Alpha contracting resulted in the desired outcome (typically identified as contract award) being achieved either on time or quicker than the traditional process. Several informants addressed the cost aspect by stating that Alpha contracting success includes reaching the desired outcome within budget or cost constraints, while one informant addressed cost by stating that successful Alpha contracting involves reaching the desired outcome at a fair and reasonable price. Two informants also stated that successful Alpha contracting included the award of a contract that the parties fully understood.

One informant stated that successful Alpha contracting is the “timely award of a contract at a fair and reasonable price, which all parties fully understand and support.”

Another definition of success was: “The Alpha contracting concept is to have both the government and contractor work in a collaborative environment to reduce cycle time through improved communications, commitment and cooperation. Alpha contracting promotes concurrent, mutual efforts to accomplish the objectives.”

The informants’ definitions of success focused on three main areas: 1) Meet or beat their required acquisition lead time; 2) Meet budget constraints and establish a fair and reasonable price; and, 3) Establish a common and full understanding of the requirements. These definitions included generic terms and often were case-specific. For example, informants mentioned “timely award” as a way to define success. As the responses from informants and the literature review showed, the definition of a timely award would vary, ranging from several weeks to several months depending on the specific program’s needs.

- Response to Question 3—How did your IPT define success of Alpha contracting?

All but two of the responses mentioned both cost and schedule savings in response to how their IPT defined success. Of the other two responses, one mentioned only schedule savings and the other mentioned that their IPT never formalized what success was.

In the case where success was never formalized, the informant mentioned that the program was transferred to their organization from another organization. The transferring organization had placed the requirements on contract on a not to exceed basis and still required substantial negotiations to definitize at the time it was transferred. Due to the desire to build a relationship between the new staffs of the contracting office, PM, and contractor, and a realization that the current contract did not adequately reflect the requirements; the decision to utilize Alpha contracting was made. As part of the Alpha contracting effort, they “went through a major restructuring of the contract to ensure all parties had a clear picture of the requirements and what was expected of each party. We decided the best way to go was Alpha.” However, the parties involved in the Alpha contracting never got together and formalized what would constitute a successful Alpha process.

- Response to Question 4—Prior to the Alpha contract, did your IPT develop any measures to assess its effectiveness? If so, what measure? What were the results?

Only one informant stated that they established metrics or measures to assess effectiveness, pointing to the Memorandum of Understanding (MOU) that was agreed to and signed by all parties at the start of the Alpha contracting process as a measure of effectiveness. The informant provided a sample MOU, which is provided at Appendix B. A review of this sample MOU revealed that while the document laid out the goals and framework of the Alpha contracting process, there was not much in the way of measures or metrics to assess effectiveness other than a target date of completion that could be used as a simplistic way to measure schedule success.

Another informant lamented that one of the issues she had with Alpha contracting was that there were no metrics established to measure success; therefore, it was difficult to tell how well the process worked, or even whether the perceived benefits outweighed the weaknesses.

- Response to Question 5—Was the group successful as a whole?

Everyone that participated in the interviews stated that their group was successful, despite never establishing metrics to establish success. Interestingly, even the informant that stated that their IPT never formalized success stated that their group was successful. Three individuals were contacted regarding a program that they identified to be unsuccessful; however, those individuals declined to participate in the research. This program will be discussed in further detail under Responses to Question 10.

- Response to Question 6—What factors are expected to contribute to the success of Alpha contracting?

Responses to this question varied greatly. The most common factor mentioned was teamwork, with three informants mentioning it. Two informants stated that commitment of the IPT members and management was expected to contribute to the success of Alpha contracting, with the following factors pointed out by one informant: having a subject matter expert for every discipline or activity involved from the beginning; empowerment of IPT members to reach agreements; trust, cooperation, and

competence of members to be able to define requirements and prepare and evaluate technical and cost proposals; negotiation of individual cost elements; and, a common understanding of what should be accomplished.

Specifically, one informant said that having a “subject matter expert at the meetings from every discipline or activity (DCAA, DCMA, contracts, technical engineers, logistics, and management) involved from the beginning” and having those subject matter experts working “in parallel or unison to complete the goals” was a factor expected to contribute the success of Alpha contracting. Another informant mentioned that it was important that there are “no hidden agendas” and “all team members work together towards a common goal.”

- Response to Question 7—Were specific key members responsible for the success of the Alpha contracting event?

Two informants stated that there were no specific key members since it was truly a team effort. However, other informants focused their responses on the government and contractor program managers, contracting officers/managers, engineers/evaluators, and price/finance analyst. Individuals that occupy these positions often were leadership positions that lead various teams within the Alpha IPT, and played key roles in defining the requirements, preparing and evaluating proposals, and negotiating the price and terms of the contract.

- Response to Question 8—What changes need to be made to make Alpha contracting more successful?

The responses varied greatly for this question, with no answer being stated by more than one informant. One informant mentioned that there must be more open communication between the contractor and government and “both parties should have an understanding of what the term ‘Alpha contracting’ really means.” One of the group chiefs interviewed stated that Alpha contracting should be used only as an exception, not the norm, because the workload managed by contracting officers and contract specialists would not allow for widespread use of Alpha contracting. As a result, this group chief believes that Alpha contracting should only be used when other, traditional options are determined to be unable to meet a program’s specific needs, such as programs that

require reduced PALT or have severe budget constraints. Another informant stated that DCAA must be allowed to contribute on the IPT level to provide recommendations on proposal preparation and evaluation, and to ensure that these activities can be performed concurrently, which is a key aspect to Alpha contracting. Finally, the associate director that was interviewed stated that structure, in the form of policies and procedures, must be added to the process, so that the Alpha contracting process does not lose integrity by people taking advantage of it. For example, as will be discussed in detail later in this section, DCAA cannot currently participate in any IPT. Therefore, an individual may be tempted to utilize Alpha contracting merely to avoid having a DCAA audit conducted on the proposal.

- Response to Question 9—Have you implemented or made changes in policy, or procedures, that have made Alpha contracting more successful?

None of the informants had implemented nor suggested policy changes; however, several provided lessons learned to their respective organizations to help provide guidance to others within their organization.

- Response to Question 10—What constitutes/defines unsuccessful Alpha contracting? What factors are expected to contribute to the failure of Alpha contract? Were specific key members responsible for the failure of Alpha contracting?

Not many informants answered these questions, stating that they have not experienced failure. Nonetheless, the following answers were provided as factors that are expected to contribute to failure: lack of teamwork, coordination of tasks, open communication, and commitment to the process. A branch chief supervising contracting officers and specialist also stated that abuse of the method and not following the process could lead to failure. Specifically, the branch chief stated that individuals like to say that they are conducting Alpha contracting to avoid doing some required contracting activities, such as writing a post-negotiation memorandum; however, these individuals in reality are just going into negotiations and skipping steps, which make it difficult to support and substantiate the negotiations afterwards. Established organizational policies and regulations relieve some contracting steps when utilizing Alpha contracting, such as

the ability to waive the pre-negotiation memorandum requirement. However, there are no known regulations that allow other steps to be skipped, such as the requirement for a sole source justification and approval or a post-negotiation memorandum.

As mentioned above under responses to question 5, the researchers identified one unsuccessful Alpha contracting program; however, when questioned further about the specifics of the program and unsuccessful application of Alpha contracting, an individual cognizant of the program and situation declined to answer stating they did not want to speak poorly of the individual responsible for the unsuccessful Alpha contracting event. In this case, the contracting officer took over the Alpha contract mid-way through the Alpha process, as the current contract specialist was promoted to a contracting officer and transferred to a different procurement team. As a result, all of the specialist's work was transferred to this current contracting officer and team.

From the current contracting officer's point of view, management informed him that the Alpha action was ready for contract award. However, upon further research into the action, the contracting officer claims that almost all agreements and work performed during the Alpha process had to be discarded because nothing was documented during the process. The contracting officer checked with the project engineer, the engineer's branch chief, the former contracting officer and former contract specialist, but claims there was no documentation nor was anything "put to memory." Therefore, when the contract action transferred from the contract specialist to this contracting officer, no corporate knowledge existed and there was no documentation to provide history of events, discussions, and agreements. The contracting officer claims he had to start from the release of a solicitation and proceeded forward in accordance with the traditional contracting process. After discussing this program with this contracting officer's management, it is the researchers conclusion that this contracting officer chose to utilize the traditional contracting process, (instead of Alpha contracting), due to inexperience with the Alpha process. As a result, the contracting officer claims the contract award was delayed by several months.

Conversely, during an interview with this contracting officer's management chain, the researchers verified the recounting of events listed above—management indicated this contracting officer's recounting of events was extremely inaccurate and instead commented that it was indeed the fault of this contracting officer who destroyed the Alpha process in place for this contract action. Management would not elaborate on the events, but did indicate that this action was on track for award prior to transfer to another contracting officer. Unfortunately, management inferred that due to this contracting officer's "laziness and lack of motivation", the Alpha process was quickly sidetracked and the team was forced to utilize the "standard contracting procedures." Management refused to offer any additional details.

The researchers interviewed the original contract specialist as to the failed outcome of this Alpha contracting action. The specialist indicated there were severe technical issues, as the program manager erroneously thought he had license rights to a specific product. The technical lead was approached for clarity on the license rights issue; however, the lead refused to comment beyond, "It wasn't my fault, so I don't know what happened." The Alpha contracting process came to a halt until the issue was resolved.

The researchers probed the specialist for additional details relating to the resolution of the license rights issue; however the specialist was unable to comment. The technical team and program manager resolved the issue without the contracts office involvement. In addition, the technical team was unavailable for comment.

The researchers encountered resistance during the interviews and therefore were unable to establish a chain of evidence in order to construct possible barriers or factors leading to the unsuccessful outcome. Based on the information collected, the researchers believe that IPT turnover had the strongest impact on this Alpha contracting attempt. The multiple viewpoints and versions of events also eliminates the possibility of discovering the root cause of the failure (or string of events leading to the failed Alpha contract); however this event is worthy of additional research as it highlights the only known Alpha contracting failure and insights into possible causes of the failure.



- Response to Question 11—Who was involved in the decision to use Alpha contracting?

Most informants stated that the contracting officer, program manager, and contractor were involved in the decision to use Alpha contracting. However, some responses also included the software, logistics, and integration teams. Two individuals stated that they were not sure who was involved in the decision and that they were directed by their management to utilize Alpha contracting; however, these two informants joined the Alpha IPT after it had begun.

- Response to Question 12—Would you have done anything different? If so, why?

Only two informants said that they would have done something differently. One of those informants, a program manager, stated that he “would have had an initial meeting with the contractor to describe the government’s expectations of the Alpha contracting.” The other informant, a supervisory group chief, stated that she would have preferred “better technical input from the program management office” because requirements development was the weakest part of the process.

- Response to Question 13—How often is Alpha contracting used?

Most informants stated that they do not believe that Alpha contracting is used often. A supervisor of contracting officers and specialist stated that she believes that people often say they are doing Alpha contracting; however, in its true sense, they are simply doing a streamlined form of the traditional contracting process. One program manager did state that his organization utilizes Alpha contracting often.

- Response to Question 14—Under what circumstances do you believe Alpha contracting can/should be used? Hence, under what circumstances is the Alpha contracting method appropriate?

Most individuals stated that Alpha contracting should be used for sole source procurements. One contracting officer also replied that “Alpha contracting works well with sole source efforts, where there is a good working relationship between the contractor and government, and where the IPT members have the time to devote to the process.” A price analyst felt that Alpha contracting should be reserved for complicated, large, and urgently needed programs.

Two group chiefs who supervise contracting officers and specialists displayed a more reserved mindset as to when to use Alpha contracting. One group chief stated that she believed Alpha contracting should be used as an “exception to the norm, when circumstances do not permit time for the traditional process.” The other group chief said she believed Alpha contracting should only be used in unique situations and only after a cost-benefit analysis is conducted to verify whether estimated contractual savings will be greater than the cost to implement.

- Response to Question 15—How does your organization arrive at a decision whether to use Alpha contracting?

All of the informants suggested that the contracting officer is responsible for assessing the situation, working with the program manager to make the decision to use Alpha contracting, and preparing any necessary paperwork for approvals; however, there were no formalized procedures that were apparent. Further, in most cases the decision to utilize Alpha contracting was not listed in the Acquisition Strategy.

- Response to Question 16—What factors led to the decision to use Alpha contracting on this requirement?

Everyone stated that time constraints led to the decision to use Alpha contracting. In addition to time constraints, one contracting officer mentioned that the “success of Alpha in the negotiation and award of the previous contract” led to the decision to use Alpha contracting on the follow-on effort. Another informant, who had the program transferred to them from another organization stated that in addition to time constraints, they decided to use Alpha contracting to get a common understanding of the requirements, and to help build a relationship between government offices (such as between contracting and program management) as well as between the government and contractor.

- Response to Question 17—At what stage in the acquisition planning did you realize that Alpha contracting was the preferred method?

All informants stated that they realized the need for Alpha contracting very early in the acquisition planning, often during preparation of the justification and approval document for sole source procurement.

- Response to Question 18—Should Alpha contracting be used more widely?

Most of the informants said that Alpha contracting should be used more often. One of those informants, a contracting officer, stated that she believes that some people do not “fully understand how beneficial it [Alpha contracting] can be. Also, when it fails, it fails spectacularly, so I think that scares some people.” This contracting officer later stated that when an Alpha IPT fails and cannot come to agreement, that the “whole traditional process has to start” and “it can damage the government-contractor relationship.” As a result, negotiations will likely be even more difficult and there will be added pressure to award.

Interestingly, three informants, all of whom are within management positions of their organization, stated that Alpha contracting should not be used more widely. Two of those informants stated that Alpha contracting should be used only in unique circumstances, implying that Alpha contracting should only be used when a priority program requires a short acquisition lead time or has budget constraints that likely could not be met using the traditional contracting process. Meanwhile, the other informant stated that Alpha contracting might be more acceptable for more widespread use in an organization that utilizes sole source procurements more than her organization.

- Response to Question 19—What are the advantages of the Alpha contracting process?

The answers were focused on the following four advantages, each of which was cited by at least two of the informants: 1) Improved understanding of the requirements and resultant contract; 2) Improved relationships and communications among the parties; 3) Time savings; 4) Cost savings; and 5) Increased mutuality and goal congruence. However, since these programs did not have established metrics to measure the success of Alpha contracting, the informants were not able to quantify the time and cost savings.

Specifically, one informant replied that the advantages included: “Building a team environment, which builds a relationship with the contractor and program office, like partnering agreements—working together on the same effort towards the same goal. It does require more time on the part of the contracts office, but it does speed up the process

overall.” Another informant, a price and cost analyst stated that an advantage to Alpha contracting was that “everything is done in parallel or unison and we were at the contractor’s plant, so it was easier to obtain information and evaluate it quicker.”

- Response to Question 20—Was the initial milestone schedule accurate? If not, how many revisions were involved and why?

Of the six informants that could remember, three said that their initial milestones were accurate, one said that the milestones had to be revised once, and two others stated that the milestones had to be revised multiple times. Some reasons for revisions to the initial milestones included system downtime, predecessor tasks taking longer than anticipated, difficulties in developing and defining requirements, and delays due to new people rotating in and out of the IPT.

- Response to Question 21—What are the disadvantages of the Alpha contracting process?

A large majority of the informants said that Alpha contracting is labor/resource-intensive and identified that as a disadvantage. Some other disadvantages mentioned by the informants were: 1) a lack of metrics to measure success; and 2) if no agreement is reached through Alpha contracting, then the negotiations may have to switch to the traditional approach, which likely would result in more difficult negotiations, added pressure to quickly award a contract, and could severely damage government and contractor relationships.

- Response to Question 22—What are potential barriers to the utilization of the Alpha contracting approach? Do you believe the Alpha contracting process could have been successful without DCAA participation in the Alpha IPT?

The following five potential barriers were identified by the informants: 1) Alpha contracting requires teaming agreements (similar to other types of IPTs) in the form of a MOU or charter, which could potentially be difficult to establish; 2) there must be a level of trust between the parties; 3) turnover of IPT members could be a potential barrier; 4) inadequate funding for travel and overtime; and 5) Lack of awareness and understanding of the Alpha contracting process.

Recently, DCAA decided to eliminate their auditor's participation in the IPT process due to concerns that DCAA participation results in a noncompliance with Generally Accepted Government Auditing Standards. This concern arose because the "current independence standards prohibit DCAA from auditing its own work or providing nonaudit services that are significant or material to the subject matter of the audits." (Saccoccia, 2008). As a result, we specifically looked for input from the informants to see if Alpha contracting was feasible without DCAA participation in the IPT. Half of the informants stated that Alpha contracting could not succeed without DCAA participation. The associate director that was interviewed stated that the lack of DCAA participation "completely kills the Alpha approach." This informant then provided the following explanation as to why she believed DCAA involvement was vital:

DCAA is a major player in the Alpha team environment. You could still perform the alpha process to some extent working with contractor on the SOW and building the proposal, but whatever you agree upon has to be provided to DCAA for an audit and you have to wait the 30-day turnaround timeframe to receive the report. Any discoveries have to open negotiations again. You can't come to a prior agreement, have to wait for the audit results and then have to open negotiations again—this could loose the good faith agreement between the contracts office and the contractor. With DCAA not involved in the entire process, they might not be privy to discussions, which led to developing the end result—and therefore not truly understand the process to get to that end. It may be rational to waive the audit—this could be the only way to circumvent this decision by DCAA.

However, the other half of informants stated that they successfully conducted their Alpha contracting without DCAA involvement on the IPT. In some of those cases, DCAA declined to participate due to concerns regarding impartiality. Two programs utilized the Navy Price Fighters to provide pricing support and to supplement for DCAA's lack of involvement. The Navy Price Fighters is a group of cost/price analyst that DoD organizations can fund to provide pricing support. In another instance, although DCAA could not participate on the IPT, they independently provided approved direct and indirect rates for the contractor and a separate material audit report to the IPT. Some of

the informants noted that although they were able to use Alpha contracting without DCAA involvement, that it would have been beneficial to have their participation in the IPT.

One informant mentioned that some people either lack knowledge about the Alpha contracting process or are purposely abusing the process. As a result, some normal and mandatory contracting steps, such as the establishment and approval of pre-negotiation objectives are being skipped. The gravity of this issue was brought to light when the Air Force Materiel Command issued a policy memo on April 27, 2009, which rescinded its IPT Negotiation and Agreement Guide. This policy memo cited the following key reasons for rescinding the guide.

The current process, as defined in the rescinded guide, did not 'distinctively separate proposal preparation and establishment of an independent government objective. Finally, the clearance approval authority is typically involved after negotiations have all but concluded, limiting their insight and guidance.' (Gill, 2009, p. 1)

The policy requires the following guidelines be met to utilize the pricing process: 1) There should be thorough discussions on requirements between the contractor and the government to ensure clear understanding of the work to be performed under the contract prior to proposal submission; 2) "The government negotiation objective should be established following proposal receipt, assessment of audits and any fact-finding actions. This objective must be approved by the Business Clearance Authority prior to negotiations;" 3) No price related agreements shall take place prior to proposal submission and business clearance; and 4) All acquisitions must follow established business/contract clearance procedures.

The policy states that a critical area of attention is DCAA's disengagement from IPT pricing. To assist contracting personnel in dealing with this issue, the policy memorandum provides a Proposal Adequacy Checklist to ensure that proposals are TINA compliant.

As described in Chapter II, the Alpha contracting process does not relieve the requirement for the establishment and approval of pre-negotiation objectives (also referred to as the Business Clearance Memorandum within some DoD organizations) prior to the commencement of negotiations. FAR 15.406-1 requires that pre-negotiation

objectives be established in all negotiated procurements. Figure 7 shows that establishment and approval of the pre-negotiation objectives is a mandatory step that follows the joint development of the proposal in Alpha contracting.

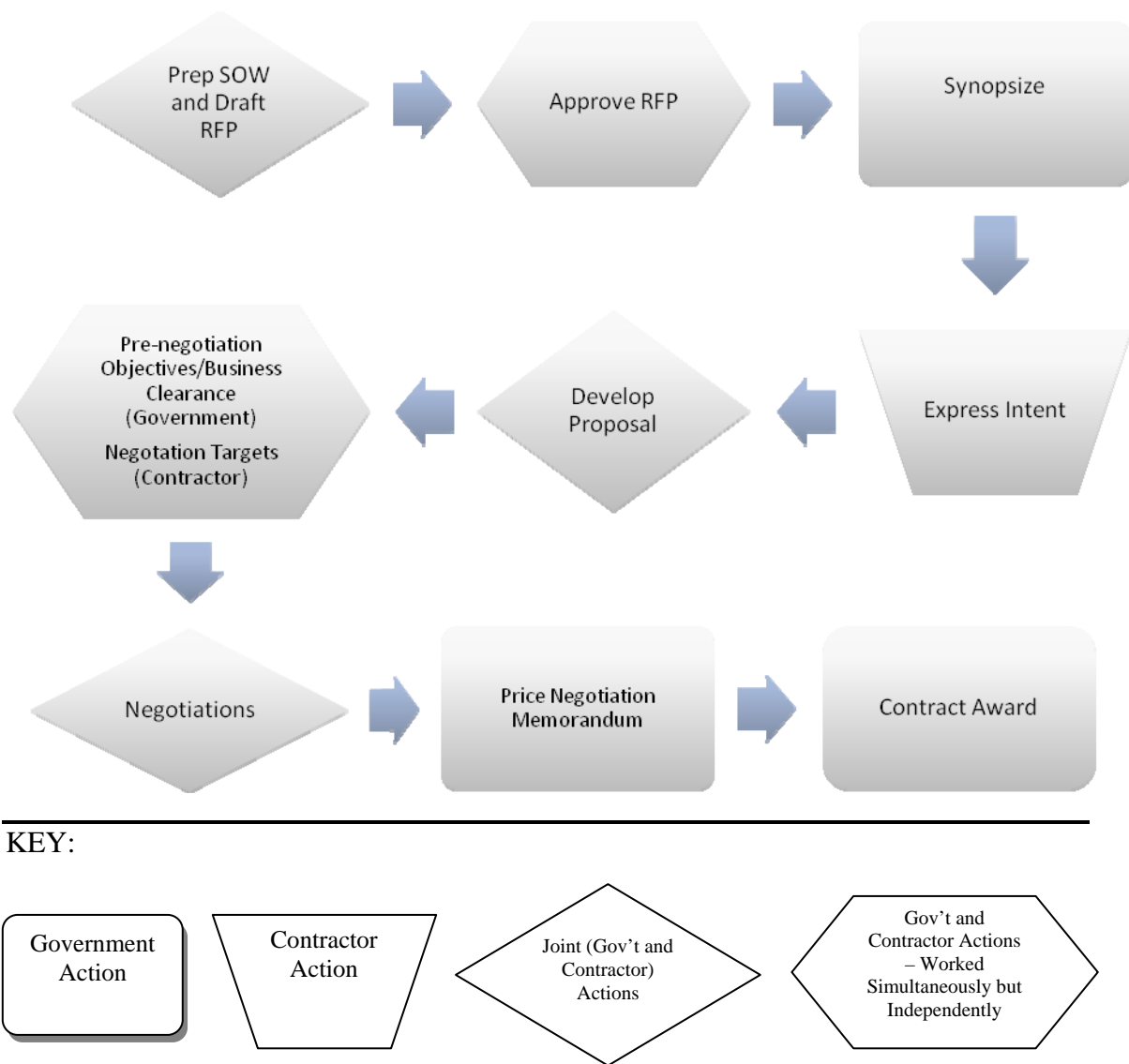


Figure 7. Alpha Contracting Flowchart

As a result of early teaming in the Alpha contracting process, the resulting negotiations should be much more streamlined than the negotiations that are conducted under the traditional contracting approach. Since the Alpha IPT jointly develops the cost as the technical details are jointly developed, the proposal more often resembles a

negotiated contract than a traditional proposal, resulting in fewer details remaining to negotiate (Meyer, 1997). However, establishment and approval of the pre-negotiation objectives is still a FAR-mandated step and remains important because it provides management with a mechanism for insight into negotiations and serves as a tool for the contracting officer to help guide the negotiations. As can be seen by the Air Force policy memorandum, most individuals inappropriately bypass these requirements when utilizing Alpha contracting. Furthermore, the Air Force Materiel Command's IPT Negotiation and Agreement Guide did not clearly delineate this requirement.

The bypassing of the requirement for pre-negotiation objectives was observed during one case study when one informant provided a memorandum that was utilized for their Alpha contracting effort. This memorandum, requesting a waiver to the establishment of pre-negotiation objectives, was approved by the Principal Assistant Responsible for Contracting and stated: "Since Alpha contracting replaces the rational sequential proposal evaluation process with a concurrent price development process, traditional negotiations are inconsistent with the use of Alpha contracting techniques. The IPT will be empowered to make recommendations to the Contracting Officer regarding the acceptability of the Alpha submissions. Therefore, the formulation and documentation of a [Pre-negotiations Objectives Memorandum] POM is neither practical nor beneficial for the subject effort." This memorandum goes on to state that a "record of IPT discussions, agreements and associated rationale relative to the Alpha contracting process will be documented in a Price Negotiation Memorandum (PNM). The PNM will be prepared and approved (at the same level as this Waiver) prior to receipt of a required Confirmation of Negotiations and contract award." It is important to note that this memorandum was in accordance with the organization's local policy. The memorandum's quoted language was taken from the organization's Acquisition Deskbook, which provides local acquisition policies and procedures. Similar to the Air Force Materiel's Commands concerns, the implications of this waiver are that the pre-negotiation objectives are not being established prior to negotiations and the approval authority does not get any insight until after negotiations have concluded.



Since Alpha contracting often involves high-dollar programs, the approval authority is often at levels higher than the contracting officer and typically is not involved in the Alpha contracting process. As a result, the establishment of the pre-negotiation objectives provides a mechanism in which the approval authority provides their concurrence with the objectives and empowers the contracting officer to negotiate within those objectives. Without the pre-negotiation objectives, an Alpha IPT may conclude negotiations and then get the price negotiation memorandum rejected by the approval authority because they do not agree with the negotiation approach or objectives. Further, the approval authority has no ability to provide guidance regarding the negotiation approach.

- Response to Question 23—Please describe the group dynamics at the beginning of the process versus the time of contract award. How did the group change, if at all? How did any changes hurt or help milestone achievement and subsequent contract award?

Two of the informants said they experienced what they deemed as “normal conflict” as a result of working long hours. Another informant mentioned that there was a learning phenomenon within their IPT—at first the group was getting to know everyone and then they began to work together to accomplish their goals; teamwork improved over time. Three informants focused on how the Alpha contracting process made the group more cohesive and one even referred to the Alpha contracting process to be “like a great team-building exercise—that was the kick-off of the program.” Among the various answers provided, there appeared to be an underlying theme of trust and commitment among the IPT members.

- Response to Question 24—Are there any resource constraints/considerations to using Alpha contracting?

A majority of the informants stated that manpower was a major constraint or consideration in that individuals are required to focus almost solely on the Alpha contracting effort for periods of time. As a result, other personnel must temporarily cover the remaining workload for those individuals. One branch chief said that many offices are short on resources and management must be willing to dedicate their resources, in the form of manpower, for the duration of the effort. Additionally, a contracting officer said

that manpower constraints are “probably the toughest aspect of Alpha to sell to organizations,” and Alpha contracting “can be challenging in organizations with resource issues.” The only other constraints identified by the informants were the availability of overtime and travel funding.

- Response to Question 25—Can Alpha contracting work in a competitive procurement?

All informants felt that Alpha contracting would be very difficult, if not impossible in a competitive procurement. However, some of the informants believed that some of the aspects of Alpha contracting could be utilized in a competitive environment, such as the creation of an IPT at a requirements definition stage. The informants felt that the biggest barrier would be industry’s reluctance to have open communication where competitors may potentially have access to proprietary information. Also, since there could be a large number of parties involved, it could become a very time consuming process since Alpha contracting is based on continuous communication between the government and contractor. More importantly, it could be very difficult to ensure all contractors receive the same amount of information and fair treatment.

## **C. DATA ANALYSIS**

### **1. Data Coding**

As mentioned earlier in the reliability and validity discussion, the researchers established a cross-case meta matrix, Appendix C, to enable the researchers to cluster the information. Descriptive codes related to the research questions were developed and the researchers used a check-coding approach, in which two researchers code data independently and discuss their findings (Miles & Huberman, 1994). This approach not only enhances reliability, as researchers reached a 95% agreement on coded responses, but also serves to validate the definitions of the codes. Sources of coded data included the transcribed interviews, email correspondence with the informants, and the researcher’s notes.

After the initial coding process, the researchers continued to search for themes throughout the data using pattern coding. Pattern coding, or axial coding, “looks at interactions and conditions, and helps provide greater insight into the data” (Ellram, 1996). To accomplish this, the researchers reviewed the meta-matrix in search of repeating ideas or phrases.

- Teamwork—all of the informants defined Alpha contracting as a technique that employs a teaming approach between the government and contractor
- Resources—two informants stated that commitment of the IPT members and management was expected to contribute to successful Alpha contracting; inadequate funding for travel and overtime were identified as a potential barrier, as well as turnover of IPT members. A majority of the informants stated that manpower is a major consideration because other personnel must temporarily manage the IPT members’ remaining workload while the IPT members focus on the Alpha IPT.
- Overall understanding of requirements—two informants stated an advantage to Alpha contracting included improved understanding of the requirements and resultant contract (customer requirements), whereas other informants discussed requirements in terms of the dedication and support necessary to support the Alpha IPT (Alpha IPT/contracting process)
- Collaboration—several informants mentioned the concept of working collaboratively or teaming to achieve a negotiated agreement, further developing a level of trust among the parties
- Management endorsement—two informants stated they were directed by management to utilize Alpha contracting
- Communication—several informants stated the need for open communication between the contractor and government, and that the Alpha experience helps to build a relationship between government offices (such as contracting and program offices), as well as between the government and contractor. As the unsuccessful Alpha program discussed in question 10 illustrated, the lack of communication amongst government IPT members is most certainly a barrier to a successful Alpha process.
- Budget/time constraints—several informants stated Alpha contracting success includes reaching the desired outcome within budget or cost constraints, and either on time or quicker than using the traditional process
- Market Structure—most informants stated Alpha contracting should be used for sole source procurements, and all stated Alpha contracting would be very difficult, if not impossible in a competitive environment

- Total ownership costs—two informants stated an advantage to Alpha contracting was ease of obtaining the contractor’s information (cost transparency) and evaluating it quicker (lead time)
- Goal Congruence—two informants stated it was important that all team members work together towards a common goal

Once the repeating ideas were recognized, the researchers began to develop themes relating to the overarching research questions and subsequent interview questions. As defined by Auerbach and Silverstein, a theme is “an implicit topic that organizes a group of repeating ideas” (2003). In the researchers’ analysis of Alpha contracting, one predominant theme was that in order to have an Alpha experience deemed successful, teamwork must be an inherent facet of the Alpha equation. Further, management must endorse the use of Alpha contracting, to include the commitment of those resources (i.e., people, time and workload redistribution), and make that commitment known to the Alpha participants. In addition, an overall understanding of the requirements is required prior to the start of the Alpha experience—this includes not only the customer requirements, but also the requirements of those individuals participating in an Alpha IPT (responsibilities of each participating member and commitment of efforts).

## **2. Explanation Building**

As an extension of pattern matching, explanation building serves to “analyze the case study data by building an explanation about the case” (Yin, 2003). As Yin further discusses, this process is the result of a series of iterations (Yin, 2003):

- Making an initial theoretical statement or initial proposition about policy or social behavior;
- Comparing the findings of an initial case against such statements or propositions;
- Revising the statement or proposition;
- Comparing other details of the case against the revision;
- Comparing the revision to the facts of a second, third or more cases; and
- Repeating this process as many times as needed.

Using the teamwork theme established during pattern coding, the researchers developed the initial proposition that in order to have a successful Alpha experience, teamwork and commitment must be inherent facets of the Alpha equation. This statement was initially compared against the findings of Informant 1, who discussed her Alpha experience with the ATIRCM/CMWS program. When asked what defined Alpha contracting, her response was “To have both the government and Contractor work in a collaborative environment to reduce cycle time through improved communications, commitment, and cooperation. It promotes concurrent, mutual efforts to accomplish the objectives.”

Continuing with Yin’s steps, the researchers further revised the proposition to include cooperation as an important facet of a successful Alpha experience. Once again, the researchers compared the details and responses given by Informant 1. In the discussion of measures taken to assess effectiveness of the Alpha experience, Informant 1 provided a copy of the Memorandum of Understanding (MOU) required to be signed by all participating members of the IPT. Within this MOU, the responsibilities of each IPT member, as well as the level of effort required for the IPT, were detailed so as to allow each member a deeper understanding of what was required during this experience. As each member signed the MOU, this agreement signified the participants’ level of cooperation and commitment to the IPT, as well as their dedication to teamwork.

The revised proposition was then compared to the findings of Informant 6, who discussed his Alpha experience with the C-130 Center Wing Replacement program. This informant’s definition of Alpha contracting describes an experience in which the “Government and Contractor work together to reach a mutually acceptable negotiated agreement. The contractor agrees to open their books to the government, which promotes cost transparency and reduces time to negotiate a contract.” In addition to discussing teamwork, Informant 6’s definition includes a different facet of cooperation. His version of cooperation extends beyond the behaviors of the government IPT and addresses the cooperative agreement entered into by the government and contractor, as demonstrated by the contractor’s willingness to share financial data with government participants. The cost transparency could also lead to increased levels of trust in the contractor by the

Contracting Officer, as well as an increased buyer's confidence in the fair and reasonable price. This signifies an extension of participation and teamwork beyond the internal workings of the government IPT members, and includes cooperation and teamwork between government and contractor.

In a third comparison, the researchers used the patchwork findings of the Alpha experience deemed unsuccessful (as discussed earlier in this chapter under the response to question 10 of the questionnaire). Management confirmed that the demise of this Alpha experience was due to the lack of commitment to the Alpha contracting process by the contracting officer. The contracting officer conveyed a lack of cooperation to management, as demonstrated by his unwillingness to use Alpha contracting methods. In reviewing the contract specialist's comments on the technical lead, in which the program manager erroneously believed he had license rights to a particular product, this highlighted a miscommunication. In this situation, had the technical team coordinated efforts with the program manager and communicated the status of license rights, this may have averted the immediate halt in progress that resulted from this mistake. Therefore, it was the absence of teamwork, cooperation and communication that was evident in this situation and ultimately caused further delay to the cycle time.

To further explore the explanation building method of analysis, the researchers developed two additional propositions. First, that Alpha contracting is appropriate for strategic spending efforts, and second, that it is appropriate for acquisitions with increased risk.

As discussed earlier in the background section, cost savings can be realized in Alpha contracting because the process often leads to a clearer definition of the requirements, often resulting in less post-award modifications, and helps the parties to understand the cost drivers (Will, 1999). This can also serve as a simple form of CAIV and enable the parties to agree on the reduction of costly requirements that are considered to be non-value added. As key stakeholders decide on system performance and cost objectives, based on cost-performance tradeoffs, the requirements and acquisition processes will make cost more of a constraint and less of a variable, while nonetheless obtaining the required military capability.

In addition to clearer definitions and tradeoffs, trust among parties involved in negotiations could result in opportunity cost savings (Siemsen, 2002). When working on the basis of trust, efforts that would normally be dedicated to the monitoring of the other parties could be reduced and redirected to other productive efforts, resulting in a more efficient negotiation process (Siemsen, 2002). This teaming process can also act as a risk management tool, whereby the Alpha IPT can identify problems and risks before a contract is awarded and jointly resolve those problems and risks (Cuskey). This collaboration further creates an environment where a shared understanding of those requirements and risks can be established.

These propositions were initially compared against the findings of Informant 7, who discussed her Alpha experience with IEWCS program. When discussing the factors that led to the decision to use Alpha contracting, her response was based on the circumstances surrounding the transfer of this program to her organization. The program required a tremendous amount of negotiating that was not complete prior to the transfer. Additionally, “the contractor misinterpreted the terms and expectations of the program, as the contract did not adequately reflect the customer requirements.” The contract and program offices decided Alpha contracting was the best approach, whereby the IPT “went through a major restructuring of the contract to ensure all parties had a clear picture of the requirements and what was expected of each party/individual.” The development of the Alpha IPT significantly reduced the risk of further misinterpretation of requirements.

To continue with Yin’s steps, the researchers further revised the proposition to include communications as an important facet of a risk management. Once again, the researchers compared the details and responses given by Informant 7. Since the transfer of the IEWCS, the contracts office was looking to build a relationship between the program office and contractor. The increased communication between government and contractor revealed the gross misinterpretation of requirements and expectations.

The revised proposition was then compared to the findings of Informant 2, who discussed her Alpha experience with the MSE MSO Phase IV program. When asked about the advantages of the Alpha contracting process, she stated “improved

communications—government evaluation of raw data, easing the identification and correction of systematic mistakes, omissions and misallocated costs before they are used as a basis of estimate.” This informant stated that the increased communications in the MSO case allowed for “significant price reduction and less time to award the contract; improved understanding of the resultant contract and prices.” Increased communication not only presents an avenue for cost reduction through teamwork and shorter cycle time; it also provides for a greater understanding of requirements by all parties involved, thereby facilitating proactive risk management.

### **3. Chain of Evidence**

As Miles and Huberman (1994) state, three minimal conditions must be met in order to accurately build a chain of evidence:

- Several informants with different roles have to point out the factors independently, and indicate the casual links;
- Verify the logical predictions and claims; and
- Countervailing evidence has to be accounted for.

The chain must be complete, as “the stream of from antecedents to outcomes should have no gaps” (Miles & Huberman, 1996, p. 260). If successful, the chain of evidence will further support an observed outcome and help verify conclusions. Conversely, if the researchers are not able establish a logical basis for an “if...then” claim, the chain will not serve its analytical purpose.

The researchers were initially concerned with using this method of data analysis, as many of the Alpha experiences were several years ago, and therefore, some respondents did not complete all portions of the questionnaire. Miles and Huberman indicated “an evidential trail should be conducted gradually, plotting logical relationships, testing this against the next wave of data collection, and then testing against new cases and instances” (1996, p. 260). Again, the information collected from respondents contained incomplete responses, with some portions of the data missing due to the lapse in time or because of the respondent not being part of a critical decision point.



Concerned with the requirement for multiple waves of data collection, the researchers attempted to construct a chain of evidence. Upon reaching a gap, the researchers contacted the respondent to readdress the question; however, the researchers were unable to obtain any additional information. The researchers experienced continued resistance with those respondents involved in the unsuccessful Alpha experience, and therefore were unable to establish a chain of evidence to construct possible barriers or factors leading to the unsuccessful outcome. In addition, the researchers could not collect the data necessary to address research question 10: What constitutes/defines unsuccessful Alpha contracting.

#### **4. Antecedents and Consequences**

Primarily utilizing the pattern matching and explanation building methods of data analysis discussed above, the researchers developed the following tables of antecedents for and consequences of Alpha contracting use, and noted the effect of Alpha contracting appropriateness. The patterns identified as antecedents and consequences were then clustered to find casual links, and aided in the development of rival theories, as discussed in the following section.

<b>Antecedents of Alpha contracting Appropriateness and Use</b>	<b>Method Used to Identify Antecedent</b>	<b>Where Antecedent Is Identified</b>	<b>Effect On Alpha contracting Appropriateness</b>
Risk	Explanation Building		Increased risk leads to increased appropriateness of Alpha contracting..
Resources	Pattern Matching	Responses to Questions 22, 24	Increased available resources (personnel, travel and OT funding) leads to increased Alpha contracting appropriateness.
Market Structure	Pattern Matching	Responses to Questions 14, 25	Alpha contracting only appropriate for sole source efforts.
Lead Time Constraint	Pattern Matching	Responses to Questions 2, 16	PALT constraints increase the appropriateness of Alpha contracting.
Type of Spend (Strategic)	Explanation Building		Alpha contracting appropriate for strategic spend efforts.
Budget Constraints	Pattern Matching	Responses to Questions 2	Budget constraints leads to increased appropriateness of Alpha contracting..
Commitment	Pattern Matching, Explanation Building	Responses to Questions 6, 10	Increased commitment leads to increased appropriateness of Alpha contracting.
Top Management Support (Management Buy-In)	Pattern Matching	Responses to Questions 11, 24	Alpha contracting appropriate when management support exists.
Trust	Pattern Matching, Explanation Building	Responses to Question 6, 10, 22	Increased trust leads to increased appropriateness of Alpha contracting.

Figure 8. Antecedents of Alpha Contracting Use

<b>Consequences of Alpha contracting Use</b>	<b>Method Used to Identify Consequence</b>	<b>Where Consequence Is Identified</b>	<b>Effect From Alpha contracting Use</b>
Goal Congruence	Pattern Matching	Responses to Questions 6, 19, 23	Goal congruence is increased through Alpha contracting.
Communication	Pattern Matching, Explanation Building	Responses to Questions 10, 16, 19	Communication between parties is increased by Alpha contracting.
Trust	Pattern Matching	Responses to Questions 23	Trust between parties is increased through Alpha contracting.
Relational Strength	Pattern Matching	Responses to Questions 3, 16, 19, 23	Increased relational strength is a result of Alpha contracting use and the increased trust.
Lead Time	Pattern Matching	Responses to Question 2, 19	PALT is decreased by Alpha contracting use.
Cost Transparency	Pattern Matching, Explanation Building	Responses to Questions 19	Greater cost transparency is experienced from Alpha contracting.
Understanding of Requirements	Pattern Matching	Responses to Questions 2, 16, 19	Parties achieve increased understanding of requirements from Alpha contracting.
Total Ownership Costs	Pattern Matching	Responses to Question 2, 19	The increased goal congruence and contract quality, as well as decreased PALT, result in decreased total ownership costs.

Figure 9. Consequences of Alpha Contracting Use

## **5. Rival Explanations**

A valuable approach to the case study methodology is the “consideration of rival propositions and the analysis of the evidence in terms of such rivals” (Yin, 2003). In doing so, this study of rival or alternate theories will enhance the validity of the research, as well as ensure that all plausible theories were thoroughly discussed. In her studies of Education Research, Patricia Lauer (2004, p. 6) identified four methods of ruling out rival explanations:

- “Checking back with study participants to confirm that the researcher’s interpretation of their responses is correct;
- The use of multiple sources of data—when data from several sources converge on the same conclusion, there can be greater confidence in the validity of these conclusions than if only one data source informs conclusions;
- A search for disconfirming evidence in which the researcher examines all the data for any evidence that might indicate the conclusions are wrong;
- Generation of specific rival explanations for the conclusions and a demonstration of how they do not apply based on the data and methods used.”

As discussed earlier, the researchers requested that all respondents review the questionnaire responses for accuracy and completeness of responses. Multiple sources of data were utilized as much as possible; however, many of the Alpha experiences took place several years ago, and therefore, some participants were unable to be reached due to retirement or relocations.

As for a search of disconfirming evidence, the researchers further developed several patterns from the identified themes, as well as rival explanations for those patterns. The following patterns and corresponding rival explanations are organized by research question.

**a. *What Constitutes/Defines a Successful/Unsuccessful Alpha Contracting Process, and what Factors are Expected to Contribute to Success or Failure of Alpha Contracting?***

Pattern: The success of Alpha contracting was tied to the success of teaming and components essential to teaming, such as trust, commitment and open communication.

Rival Explanation: Literature review showed that Alpha contracting built or improved the relationship between the government and contractor. However, the literature review of relational exchange and many of the reviewed cases showed that working relationships already existed between the government and contractor prior to entering the Alpha experience.

**b. *How often is Alpha Contracting Employed and Why?***

Pattern: The informants who strongly believed that Alpha contracting should not be used more frequently, (primarily due to the concerns over resources), were all within a managerial position. As management, one of their primary concerns is the allocation of resources and workload management.

Rival Explanation: Research has stressed the importance of and requirement for an organizational culture change via management buy-in. It is possible that this culture change has not occurred and is negatively influencing the perception of Alpha contracting. One theory is that managers have greater insight to the organizational resource constraints and place a greater emphasis on managing those resources, thereby leading to a greater hesitance to using Alpha contracting more frequently.

**c. *Under what Circumstances is the Implementation of the Alpha Contracting Method Appropriate?***

Pattern: Two informants stated Alpha contracting should be the “exception to the norm, when circumstances do not permit time for the traditional process” and only after a cost-benefit analysis is conducted to verify whether estimated contractual savings will be greater than the cost to implement.

Rival Explanation: Literature review showed that “merely performing the same process steps faster—applying automation, employee overtime, or extended shifts, to mention a few of traditional methodologies—do not reduce costs or improve quality. These actions in fact drive up overhead, add cost, and do little to address our customers’ real needs” (Clubb, 1996). The timesaving experienced through Alpha contracting is a result of the early collaboration between the government and contractor and subsequent decrease in iterations of formal contractual documents, as well as the government and contractor completing some tasks jointly, such as developing the RFP. The researchers could not locate any instance where a cost-benefit analysis was performed to compare an Alpha contracting approach versus a traditional approach.

*d. What are the Advantages/Disadvantages of the Alpha Contracting Process?*

Pattern: Informants primarily stated that Alpha contracting was successful, defining success as decreasing PALT and costs; however, none of the informants established measures to assess success. Further, both the literature review and the information gathered through interviews revealed that the need to allocate a significant amount of upfront resources is a disadvantage of and potential barrier to Alpha contracting.

Rival Explanation: Since the case studies contained no measures established to assess success, it is difficult to determine whether the perceived decreases in PALT and cost are strictly a result of the Alpha contracting process or the larger dedication of the resources. One can reasonably ask whether and to what extent the PALT and cost would decrease under the traditional process, if an equivalent level of commitment and amount of resources were utilized. Further, the researchers could not locate any instance where a cost-benefit analysis was performed to compare an Alpha contracting approach versus a traditional approach. In addition, the researchers have not located an analysis of the cost differences between the short, albeit heavy, allocation of resources associated with Alpha contracting versus the drawn-out, less intensive

allocation of resources for the traditional contracting approach. Without that information, the precise advantage of overall decreased cost and PALT, coupled with the required need for large, upfront resources, is undeterminable.

*e. What are the Potential Barriers to the Utilization of the Alpha Contracting Approach?*

Pattern: When questioned about DCAA's recent decision to eliminate auditor participation in the IPT process, half of the informants stated that the Alpha contracting process could not succeed without DCAA participation.

Rival Explanation: The other half of the informants stated that they successfully conducted their Alpha contracting without DCAA involvement on the IPT. Two programs utilized the Navy Price Fighters to provide pricing support and to supplement for DCAA's lack of involvement. In another instance, although DCAA could not participate on the IPT, they independently provided approved direct and indirect rates for the contractor and a separate material audit report to the IPT. One could reasonably question whether DCAA's lack of direct participation on the Alpha IPT would actually inhibit the success of the Alpha event, as long as some pricing support was provided.

## **D. SUMMARY**

This chapter provided a summary of the responses provided to each interview question. As Chapter III described the research objectives and methods used in our study, Chapter IV built on that methodology and provided an in-depth discussion of various analysis tools applied to the data collected. Utilizing those tools and the data collected, multiple antecedents and consequences of Alpha contracting were established and discussed. Chapter V presents conclusions and makes recommendations for the implementation of the Alpha contracting process into future DoD acquisitions, as well as recommendations based on lessons learned and best practices.

THIS PAGE INTENTIONALLY LEFT BLANK

## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to discuss the answers to the research questions listed in Chapter I and to draw conclusions based on the data provided in Chapters II through IV. This information enables an overall understanding of the Alpha contracting process and assists individuals when deciding whether the implementation of Alpha contracting would be beneficial in a given sourcing situation. Further, the information provides assistance after the decision to utilize Alpha contracting has been made, by enabling individuals to benefit from the lessons learned of previous DoD Alpha contracting experiences. The chapter will revisit the JSOW case study and compare its findings with those of this study. Additionally, this chapter will discuss implications for theory and practice, and provide a set of recommendations intended for consideration by any DoD individual considering the implementation of Alpha contracting. Finally, this chapter will conclude with suggested areas for further research and the limitations of the study.

### **B. RESEARCH QUESTIONS**

#### **1. What Constitutes/Defines a Successful/Unsuccessful Alpha Contracting Process, and what Factors are Expected to Contribute to Success or Failure of Alpha Contracting?**

Successful Alpha contracting most commonly referred to the ability to reduce costs or PALT. The extent to which successful Alpha contracting can reduce cost or PALT varied based upon program-specific needs and limitations. Additionally, successful Alpha contracting may include fostering a better understanding of the requirements and improving contract quality, building the relationship between the government and contractor, or acting as a risk management tool. While successful Alpha contracting would ideally include all of these results, it may include as few as one of them depending on the program's needs. For example, if it is vital that a contract is



awarded by a specific date, success, as defined by those participating in the Alpha IPT, may be defined only by whether the contract is awarded by the deadline. Successful Alpha contracting ultimately constitutes meeting the program-specific needs that originally led to the decision to utilize Alpha contracting, whereas unsuccessful Alpha contracting is a failure to meet those program-specific needs.

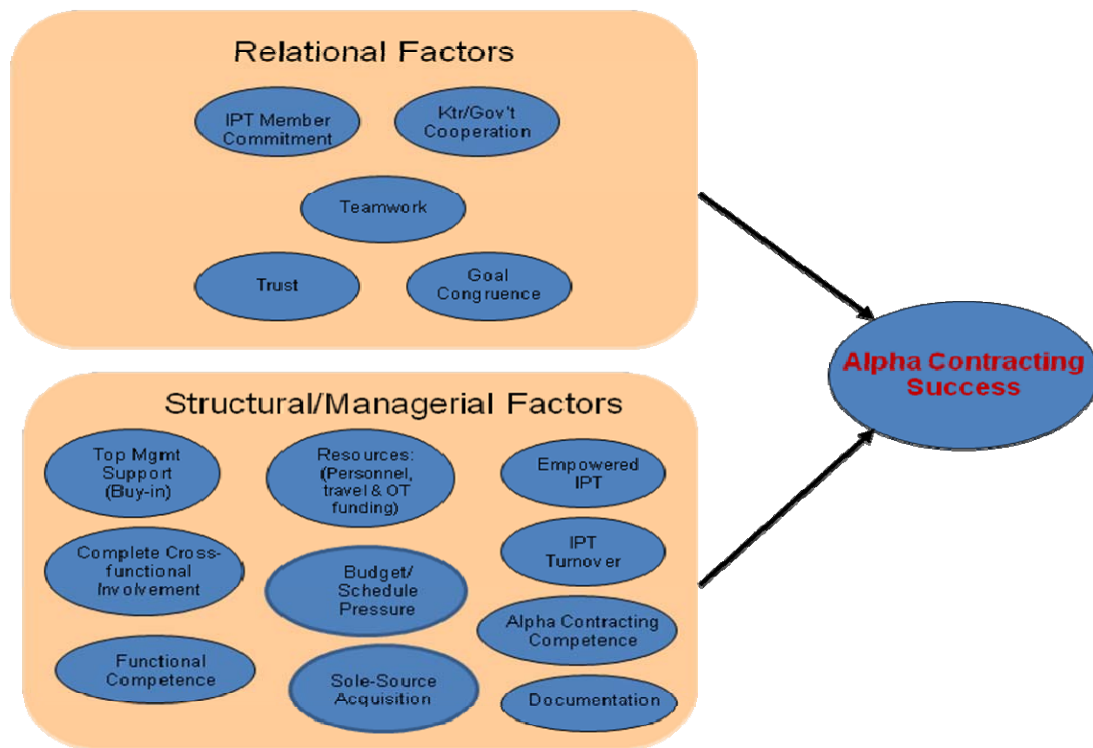


Figure 10. Predictors of Alpha Contracting Success

The most prevalent factor that can be expected to translate into either successful or unsuccessful Alpha contracting is teamwork. Teamwork in the Alpha contracting process is vital, and without an Alpha IPT that works well together it becomes highly likely that the Alpha contracting process will be unsuccessful. There are several key components of teamwork that are essential to ensure effective teamwork: 1) trust among the participants; 2) open communication and cooperation within the teaming environment; 3) empowerment of IPT members to make decisions and reach agreement; 4) a shared understanding of the goals; and, 5) commitment of the IPT participants and management to the Alpha contracting process.

While the lack of resources may be a barrier to the utilization of Alpha contracting, the degree to which resources, in the terms of manpower and available funding for travel and overtime, can be a determinant of whether the Alpha contracting process is successful or unsuccessful. Having a subject matter expert for every discipline involved in the process from the beginning and limiting the amount of team member turnover were also identified as factors that can increase the likelihood of success. Likewise, it is important that the members of the IPT are competent within their discipline and are able to define requirements and prepare and evaluate technical and cost proposals. Competence among the participants to appropriately conduct an Alpha contracting process is also an important contributor to success. It is also imperative that the process is adequately documented, as the research showed that the lack of adequate documentation could result in an unsuccessful Alpha contracting effort.

## **2. How Often is Alpha Contracting Employed and Why?**

There is no universal established tracking method for the use of Alpha contracting, such as by being able to code its use within the Federal Procurement Data System—Next Generation (FPDS-NG), which is successor to the Individual Contracting Action Report (DD Form 350). Therefore, it is difficult to detail how often Alpha contracting is employed. Nonetheless, based on information gathered through the case studies, it is evident that the frequency of use varies depending on the organization.

Organizations that had management buy-in of the process and promoted its use employed Alpha contracting more than those that did not. Other factors that often result in less frequent use of Alpha contracting are: 1) the lack of knowledge and understanding of the process; 2) the unwillingness to try something new or different; 3) if the Alpha contracting process had been unsuccessfully utilized by individuals within the organization in the past; and, 4) the type of work the organization does may not be conducive to the use of Alpha contracting. For example, an organization that predominately utilizes competitive acquisitions instead of sole source acquisitions would have fewer opportunities to use Alpha contracting.

Alpha contracting was most often used to accomplish a goal that would be improbable to reach through the traditional contracting approach. Most commonly, Alpha contracting is used to award a contract at a reduced PALT. However, Alpha contracting is also utilized for programs with tight budget constraints. In these instances, the teaming approach used for Alpha contracting can be an effective tool for the government and contractor to collaborate and eliminate non-value added cost drivers. Likewise, Alpha contracting is also used as a risk mitigation tool for complex programs, in which the IPT can identify problems and risks before a contract is awarded and jointly resolve those problems and risks (Zsidisin & Smith, 2005). Finally, Alpha contracting is also used to reach a common understanding of the requirements and build relationships among the parties.

The knowledge of the factors that drive the use of Alpha contracting could be used to aid individuals when deciding whether Alpha contracting would be appropriate to use in their circumstance. Additionally, management can analyze these factors to determine how they could expand the use of Alpha contracting within their organization.

### **3. Under What Circumstances is the Implementation of the Alpha Contracting Method Appropriate?**

The general circumstances rendering Alpha contracting appropriate are: 1) a sole source effort, since it would be extremely difficult to convince industry that their proprietary information would be protected. Additionally, it would be difficult to ensure fair and equal treatment among all competitors. Further, while one of the benefits of Alpha contracting is the time savings, there are some concerns that Alpha contracting may be very time consuming in a competitive environment if many parties are involved; 2) high dollar and high priority program, where it would be worth the larger investment of the upfront resources. This type of program would be classified as a *strategic* procurement under Kraljic's (1983) classification model. Strategic spend is characterized by high supply difficulty (lack of competition), and a high criticality (high importance to the organization's purpose or competitive advantage). It would not be worthwhile to engage in Alpha contracting as a way to reduce costs on a low dollar program since the

costs to conduct the process could outweigh any potential cost savings; 3) there is a need to award a contract quicker than the traditional process PALT would typically allow. In these instances, the number of available options are limited, and organizations often turn to the use of Undefined Contract Actions (UCA), which is a contract action for which the contract terms, specifications, or price are not agreed upon before performance is begun under the action, such as a letter contract. While an UCA may be a useful tool, it too has its drawbacks (e.g., high cost risk). Alpha contracting provides another viable option available in this type of circumstance; 4) there is an on-going requirement that would create the need to maintain or manage the business relationship. Since Alpha contracting is based on relational exchange, it is best suited when there will be the need to maintain a business relationship instead of a single transactional exchange; 5) there is a need to improve or create a mutual understanding of the requirements or risks. In all acquisitions, it is necessary that both the government and contractor understand the requirements; however, this may be extremely difficult to achieve at an arm's length negotiation (i.e., transactional exchange) for programs with numerous or complex requirements. As a result, Alpha contracting is best suited for complex acquisitions where the requirements may be difficult to understand or could be misinterpreted, and where the risks are numerous or severe. The collaboration generated by Alpha contracting creates an environment where a shared understanding of those requirements and risks can be established; 6) adequate resources are available to support the process. The requirement to dedicate a substantial amount of up-front resources was identified as a major barrier to the implementation of Alpha contracting and a potential cause of failure. As a result, Alpha contracting should only be used when adequate resources have been identified and dedicated to the process; 7) there are tight budget constraints on the program. The Alpha IPT provides a effective teaming environment in which the government and contractor can identify and eliminate non-value added cost drivers within a solicitation to reduce the overall costs; and, 8) management buy-in for all participating parties, since the participants will not obtain the necessary resources and approvals without management approval, and management could terminate the Alpha contracting process at any point if buy-in wanes.

This study confirmed what has been previously published regarding the appropriateness of Alpha contracting. However, there were three additional findings that this study revealed: instances where there is a need to award quicker than the traditional PALT would allow, instances where there is a tight budget and costs must be reduced, and the need for management buy-in. Knowledge of the eight circumstances for appropriate implementation of Alpha contracting should help individuals avoid the inappropriate application of Alpha contracting.

Chapter IV details the antecedents and consequences of Alpha contracting. The following figure summarizes those findings.

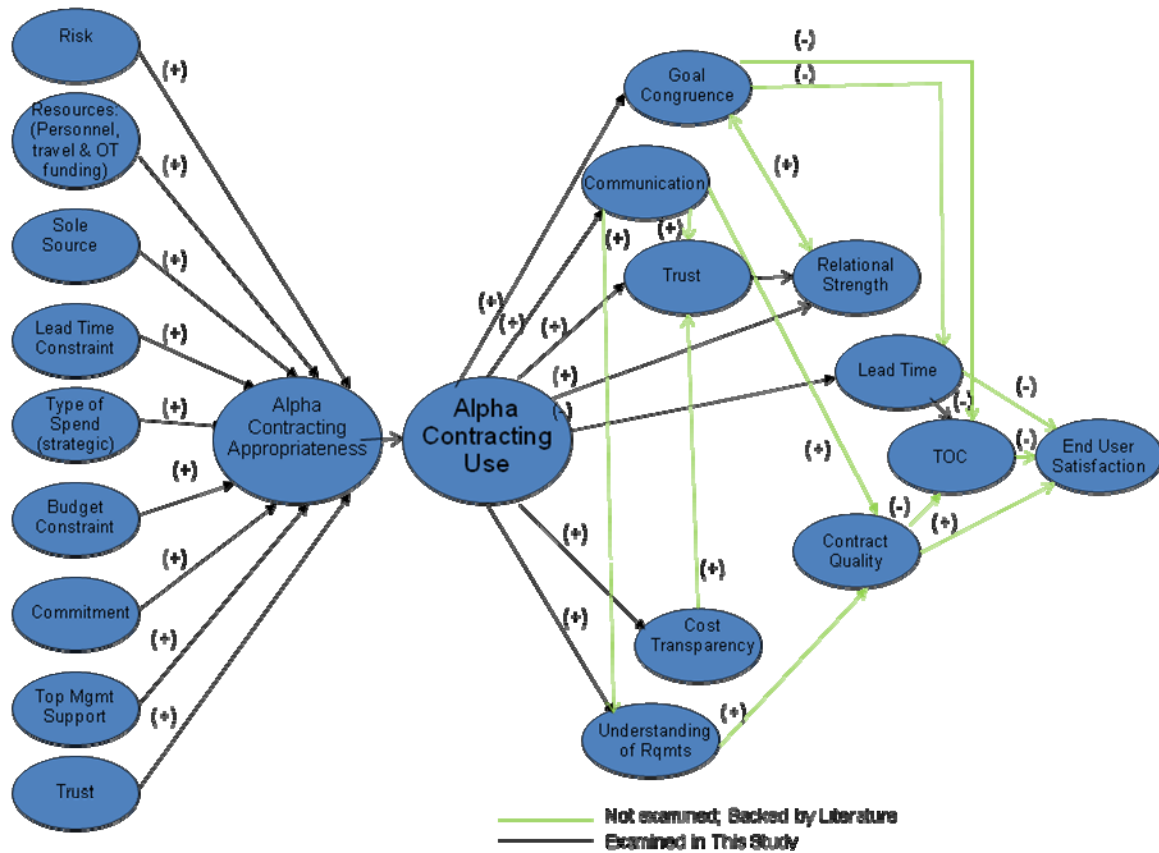


Figure 11. Antecedents and Consequences of Alpha Contracting

#### **4. What are the Advantages/Disadvantages of the Alpha Contracting Process?**

The extent of the advantages or disadvantages was dependant on the program characteristics, such as complexity and program goals (i.e., when award needs to be made by or if there were tight budget constraints). As discussed below, this study confirmed the previously identified advantages and disadvantages that were detailed in Chapter II, and revealed two additional disadvantages.

This study did not identify any additional advantages of Alpha contracting beyond what has been previously published. However, this study did confirm the following five advantages that were previously discussed in Chapter II: 1) reduced PALT due to concurrency; 2) improved understanding of the requirements and resultant contract; 3) improved relationships and communications among the parties due to the teaming process, which can lead to better contract quality; 4) decreased overall costs as a function of reduced PALT, fewer iterations for contractual documents, and a clearer definitions of the requirements; and 5) the teaming process of Alpha contracting can help identify problems and risks and jointly resolve them, serving as a risk management tool.

Chapter II previously identified the primary disadvantage of Alpha contracting as the need to provide a large, upfront investment of resources. However, other disadvantages included: 1) Alpha contracting requires an organizational culture change, management buy-in, and institutional trust to implement; 2) Alpha IPTs can be difficult to maintain, potentially leading to failure; and, 3) Alpha contracting is not appropriate for every circumstance. Additionally, this study uncovered two disadvantages that were not previously documented. The first additional disadvantage is the lack of established metrics to measure Alpha contracting success, and the second additional disadvantage is that the government-contractor relationship may be severely damaged if the Alpha contracting effort fails.

## **5. What are the Potential Barriers to the Utilization of the Alpha Contracting Approach?**

Our research revealed seven potential barriers to the utilization of Alpha contracting: 1) inadequate resources in the form of manpower or funding; 2) lack of trust between the parties; 3) inability to obtain management buy-in; 4) turnover of IPT members; 5) a teaming agreement or MOU must be established prior to commencing the Alpha contracting effort, which occasionally may be difficult to get the parties to agree to; 6) the elimination of DCAA involvement in the Alpha IPT; and, 7) lack of awareness and understanding of the Alpha contracting process.

The case studies revealed that Alpha contracting can be successfully implemented despite the absence of DCAA; however, doing so further exasperates problems created by needing to invest large, upfront resources. Ultimately, the research showed that the absence of DCAA is not necessarily detrimental. When deciding to utilize Alpha contracting, a determination would have to be made as to whether there is a suitable method available to compensate for the lack of DCAA involvement. If there is not a suitable workaround, then Alpha contracting may not be viable. If there is a suitable workaround, a determination would then have to be made on the availability of resources to implement the workaround. For example, a determination would have to be made on whether there is adequate funding in place to hire the Navy Price Fighters, or if additional personnel are available from the acquisition office to perform duties that would typically be performed by DCAA.

### **C. THE JSOW CASE STUDY**

In the JSOW case study, Dr. Nissen identified a dozen factors associated with the Alpha contracting process that were considered to be important contributors to, or determinants of successful Alpha contracting. Those factors were then separated by whether or not they are variable or fixed, and then by the locus of control, as shown in the following figure.

<b>Locus of Control</b>	<b>Variable</b>	<b>Fixed</b>
<u>Internal:</u>	(Quadrant I)	(Quadrant II)
	Contract type	Alpha experience
	Competition	Technical IPTs
	PMO commitment	
<u>External:</u>	(Quadrant IV)	(Quadrant III)
	Program phase	ACAT
	Budget/schedule pressure	System
	Contractor openness	Complexity
		Geography

Figure 12. Clustering of Factors (From: Nissen)

The case study proposed a simplistic scheme as follows: a) score +1 if a factor contributes to Alpha contracting success; b) score -1 if a factor inhibits or is neutral to alpha contracting success. Under this scheme, the higher the score, the greater the likelihood of alpha contracting success, and negative scores (i.e., below zero) may signal potential problems with the Alpha approach. This case study provided great insight into the Alpha contracting process and a look at what factors may contribute to the success of Alpha contracting, as well as those that may be antecedents of Alpha contracting.

The JSOW case study provided a baseline for this study. After conducting research on multiple cases, it became evident that the JSOW provides a good starting point for determining Alpha contracting success. The following table compares the contributors to, or determinants of successful Alpha contracting identified in the JSOW case study with those identified in this study.



JSOW Case Study	This Study
Competition	Sole-Source Acquisition (i.e., market structure)
PMO Commitment	Commitment and Buy-in from all parties
Technical IPTs	Empowered IPTs
Budget/Schedule Pressure	Budget/Schedule Pressure
Contractor Openness	Teamwork and Cooperation
ACAT	Trust
System	Goal Congruence
Complexity	Available Resources
Contract Type	Complete Cross-Functional Involvement and Competence
Alpha Experience	Alpha contracting Competence
Geography	Low IPT Turnover
Program Phase	Adequate Documentation

Figure 13. Comparison of Contributing Factors

The JSOW study identified PMO commitment as determinate of success. This study found that this factor should be expanded to include commitment and management buy-in from all participants. The JSOW study also found that contractor openness was a contributor to the success of Alpha contracting. The JSOW study defined contractor openness as whether (and extent to which) the contractor is committed to alpha contracting and teamwork. This study identified teamwork and trust as key contributors to Alpha contracting success in place of contractor openness. This was done because commitment was identified as a separate factor within this study. Furthermore, teamwork and trust are foundations of Alpha contracting and it is essential that all participants trust each other and are committed to teamwork.

While the JSOW study identified prior Alpha contracting experience and the extent to which technical IPTs were employed as contributing factors, this study identified Alpha contracting *competence*. While it is reasonable to believe that Alpha contracting competence may be derived from prior Alpha contracting experience, this study showed that prior experience is not essential. Prior experience does not guarantee

competence. Likewise, this study showed that functional competence is a determinate of success. If an individual is not functionally competent, it can lead to loss of trust and be a source of frustration within the IPTs.

The JSOW case study identified geographical separation as a contributing factor. This factor was expanded under this study to consider the availability of all resources. Geographical separation is a resource consideration since larger geographical separations are likely to result in the need for additional resources, such as travel and overtime funds. However, the geographical separation factor does not account for other resources, such as manpower.

It is important that there is low IPT turnover during the course of the Alpha contracting effort. Each time an IPT member is introduced or replaced, there is the potential for the process to be disrupted. In addition, management should empower the participants to make decisions and agreements. Without an empowered IPT, the process will become frustrating and could disrupt the schedule due to the need to constantly brief management to obtain any decisions or agreements.

Although the following factors were identified by the JSOW study, they were not identified in this study: ACAT, system, complexity, contract type, and program phase. These factors varied among the various cases within this study, yet all of these cases were classified as successful. This showed that Alpha contracting could be successfully utilized on programs regardless of the ACAT, system, program complexity, contract type, or program phase. Finally, this study identified documentation as a contributor to the success of Alpha contracting. The lack of adequate documentation played a role in the one instance of unsuccessful Alpha contracting that the study explored. Adequate documentation can serve as a mitigation tool to some of the factors that could lead to unsuccessful Alpha contracting. For instance, when there is IPT turnover during the process, adequate documentation can help the new members understand what has taken place up to that point.

This study also showed that the simplistic scoring scheme utilized in the JSOW case study should be enhanced to improve its usefulness. The major concern is whether a

plus or minus one score for one factor should be able to offset a plus or minus one in another factor. Additionally, neutral factors are rated a -1, which can negate the +1 of a contributing factor, regardless of the degree that the factor could ultimately contribute to Alpha contracting success. For example, one factor in the model is competition (i.e., whether it is a competitive or sole-source acquisition). This study showed that Alpha contracting is a tool designed for use only on sole-source acquisitions. As a result, competition should be a go, no-go factor that could not be offset by a positive factor. Similarly, other factors, such as contractor openness and PMO commitment, are such vital factors to promoting trust and effective teaming that without them Alpha contracting is destined to fail. Instead, this type of model may benefit from a combination of go, no-go factors and factors that are evaluated on an ordinal scale.

#### **D. CONCLUSIONS**

Alpha contract is a sole-source contracting process that utilizes a collaborative and concurrent process instead of the serial, over-the-fence traditional approach. The team approach utilized throughout the Alpha contracting process can yield significant benefits, including reduced PALT, decreased costs, risk management, improved relationships, and an enhanced understanding of the requirements among the parties. Yet, research revealed that there is a common perception that many individuals do not truly understand what Alpha contracting is and, as a result, are often simply “doing a streamlined form of the traditional contracting process.” Further, individuals do not fully understand how beneficial Alpha contracting can be.

Despite the documented benefits of Alpha contracting, there are some disadvantages to its use, and it is not designed for all types of negotiations. Alpha contracting is not likely to be successful unless it is utilized on a program that meets the following criteria: 1) sole source; 2) high dollar and high priority; 3) requires a shorter than normal PALT; 4) there is a need to maintain or manage the business relationship; 5) there is a need to improve or create a mutual understanding of the requirements or risks; 6) adequate resources are available to support the process; and, 7) management buy-in for all participating parties.

## **E. RECOMMENDATIONS**

### **1. Establish Procedures for Use and Incorporate Them into Training**

The case studies revealed that there are no standard procedures guiding the use of Alpha contracting. As a result, misunderstandings of the appropriate procedures are leading some organizations to decide to halt, or severely limit, the use of Alpha contracting. Further, the interviews showed that there are concerns that Alpha contracting may be occasionally abused. As a result, organizations should establish procedures for the use of Alpha contracting. These procedures should serve two main purposes: 1) to establish an approval process, and 2) to guide individuals in determining whether the use of Alpha contract would be appropriate. The flowchart provided in Chapter IV (Figure 7) could aid as a useful guide to compliant, effective Alpha contracting by helping to resolve misunderstandings about the Alpha contracting process, and to provide a map to guide IPTs to properly conduct Alpha contracting in the future. To accomplish these goals, organizations could create an Alpha contracting guidebook or a checklist that would enable an individual to compare a program's characteristics with Alpha contracting criteria for use. Additionally, an organization could consider requiring a Determinations and Findings be prepared and approved to justify the use of Alpha contracting, and requiring that the use of Alpha contracting be documented within the acquisition plan.

Alpha contracting is not included in any of the DoD's mandatory training classes. As a result, many individuals are not exposed to the concept of Alpha contracting until they actually take part in it. To further exasperate this problem, there is no training on Alpha contracting's underlying principles, such as relational exchange and early supplier involvement. In order to familiarize the acquisition workforce with the Alpha contracting concepts, as well its potential benefits and disadvantages, Alpha contracting should be incorporated into DoD's mandatory training program for acquisition personnel.

## **2. Track Use of Alpha Contracting**

There are no tracking mechanisms for the use of Alpha contracting. Tracking the use of Alpha contracting could provide several potential benefits, to include helping to collect data to benchmark the success of Alpha contracting and providing sources for lessons-learned or best practices. Many organizations have internal systems to track contractual actions. Additionally, the DoD utilizes FPDS-NG as a universal system to collect data regarding contractual actions. Coding of contract actions could be implemented in any of these systems to track Alpha contracting efforts.

## **3. Establish Teaming Agreements and Conduct Kick-Off Meetings**

At the beginning of each Alpha contracting effort, it is recommended that a teaming agreement be reached among all parties participating in the IPT. The informants in several case studies stated that a teaming agreement, such as in the form of a MOU, was agreed to at the beginning of their Alpha contracting effort. The teaming agreements were an effective tool that documented the agreed upon roles and responsibilities of the individuals participating in the Alpha IPT, laid out the procedures and guidelines for the Alpha contracting process, and ensured that all parties understood the goals of the process.

Following the establishment of the teaming agreements, it is recommended that a kick-off meeting be held with the major stakeholders and participants of the Alpha contracting effort. The kick-off meeting should review the processes, rules, controls, goals, and milestones for the effort. The kick-off meeting should identify each sub-IPT and its members. Potential risks or barriers to completion should also be identified and mitigation responsibility should be assigned (Cuskey).

## **4. Establish an Alpha Contracting Focal Point and a Database of Lessons Learned and Best Practices**

Organizations that have the potential to use Alpha contracting frequently may benefit from having a dedicated individual that can serve as a go-to person for Alpha contracting. This individual would be a subject matter expert for Alpha contracting and

can serve as a central resource that can provide guidance to those participating in the process. During this study, it was revealed that a couple of informants had documented the lessons learned or best practices following their Alpha contracting effort. However, these documents were never made readily available to others, and some could no longer be found by the informant. This type of documentation can be an extremely valuable resource to those looking to implement Alpha contracting. As a result, organizations should consider developing a database, or promoting widespread use of established sources, such as the Defense Acquisition University's Community Connection, to collect and make readily available any documented lesson learned or best practices.

## **F. AREAS FOR FURTHER RESEARCH**

### **1. Metrics to Measure Alpha Contracting Success**

This study focused on what defined successful and unsuccessful contracting and that factors that led to both outcomes. One common theme that was identified was the lack of metrics to measure Alpha contracting success. Without this information, it is difficult to quantify the differences between Alpha contracting and the traditional contracting approach. Further, the absence of this data leads some to be skeptical about the advantages of Alpha contracting. Further research could be conducted to explore how Alpha contracting success could be measured and compared to the traditional process.

### **2. Structural Barriers**

Alpha contracting has been shown to be a valuable tool, allowing practitioners to experience benefits that the traditional contracting approach would be unable to replicate. Nonetheless, there are barriers in place that prevent its more widespread use. Further research can be conducted to identify these barriers and explore possible solutions to these barriers to enable more widespread use of Alpha contracting. One example of the structural barriers that can be researched is the requirement for a large, up-front commitment of resources. Possible solutions may involve the use of collaboration software to facilitate virtual meetings, reducing overtime and travel costs.

Another barrier is the lack of Alpha contracting training. Further research can be conducted to determine how much and what type of training should be conducted. Possible methods to eliminate the training barrier may include incorporating the training into an existing mandatory Defense Acquisition University course, or developing a separate class. In the event that training could not be implemented DoD-wide, organizations that utilize or may potentially utilize Alpha contracting frequently can create their own course, or bring individuals in to conduct training for their workforce. For example, organizations will occasionally hire commercial firms to teach a refresher course to a source selection evaluation board prior to commencing a source selection.

### **3. Expanded Uses for Alpha Contracting**

This study explored the criteria for use of Alpha contracting, which included being a complex, sole source effort that is high dollar and high priority. During the interviews the informants mentioned that, in their opinion, Alpha contracting could not be utilized for competitive acquisitions; however, that certain Alpha contracting concepts may be useful for competitive efforts. The criteria for use of Alpha contracting still limit a potentially useful contracting technique to a fairly small percentage of acquisitions. A potential area of research is to examine whether and how the criteria for use of Alpha contracting, or specific aspects of Alpha contracting, could be expanded to include additional types of procurements.

## **G. LIMITATIONS OF STUDY**

This study attempted to examine a wide-array of cases and interview informants from all disciplines within the Alpha IPT. However, the cases represented a convenience sample and only limited information was available from an Alpha contracting experience, which was classified as unsuccessful. Additionally, we were unable to obtain the contractor's point of view and experiences regarding Alpha contracting. Also, it likely would have been beneficial had we been able to interview entire Alpha contract IPTs or be able to observe an Alpha contracting effort.

## **H. SUMMARY**

Alpha contracting is a collaborative effort between a buyer and supplier during contract formation to maximize efficiency and effectiveness. Although several benefits of Alpha contracting are espoused in the literature, the concept is not ubiquitous nor is it well understood. The purpose of this study was to evaluate current DoD procedures for the use of Alpha contracting. Specifically, we explored Alpha contracting to define what constitutes successful and unsuccessful Alpha contracting, as well as the contributing factors to both outcomes. Additionally, we identified antecedents for and consequences of use. This research identified the utility of Alpha contracting, and explained its narrow usage to date. Using a case study methodology, we interviewed experienced Alpha contracting teams, to include contracting officers, DCAA, DCMA, end users/customers, program managers and acquisition directors to better understand the Alpha contracting phenomenon. We used the interview results and research to develop four recommendations to address the factors that lead to successful Alpha contracting, as well as the barriers that arise once used.

This study identified two additional disadvantages that had not been previously identified in published literature. These disadvantages are the lack of established metrics to measure Alpha contract success and that the government-contractor relationship may be severely strained if the Alpha contracting effort fails. Additionally, this study found several contributors to, or determinants of Alpha contracting success that differ from those that had been previously identified. These include trust, goal congruence, available resources, functional competence, Alpha contracting competence, low IPT turnover, and adequate documentation. Further, this study clarified the Alpha contracting process and provides a flowchart that may help resolve misunderstandings about Alpha contracting and thereby help prevent unwarranted restrictions on its use. The flowchart may also guide Alpha IPTs by providing a map to conduct Alpha contracting properly in the future.



THIS PAGE INTENTIONALLY LEFT BLANK

## **APPENDIX A. INTERVIEW PROTOCOL**

Job Title:

Responsibilities/Duties:

Length of employment:

Organization:

Why did you want to work for this organization:

Program:

Role in IPT:

Program description and background/characteristics:

### Interview Questions

Interview questions will include the following areas:

- Define Alpha contracting.
- What constitutes/defines a successful Alpha contracting process?
  1. How did your IPT define success of Alpha contracting?
  2. Prior to the Alpha contracting even, did your IPT develop any measures to assess its effectiveness? If so, what measure? What were the results?
  3. Was the group successful as a whole?
  4. What factors are expected to contribute to the success of Alpha contracting?
    - a. Were specific key members responsible for the success of the Alpha contracting event?
  5. What changes need to be made to make alpha contracting more successful?
  6. Have you implemented or made changes in policy, or in procedures, etc., that has made alpha contracting more successful?
- What constitutes/defines an unsuccessful Alpha contracting process?
  1. What factors are expected to contribute to the failure of Alpha contracting?
    - a. Were specific key members responsible for the failure of Alpha contracting event?
- Who/what parties were involved in the decision to use Alpha contracting?
  1. Would you have done anything differently? If so, why?

- How often is Alpha contracting employed and why?
  1. Under what circumstances do you believe Alpha contracting can/should be used? Hence, under what circumstances is the Alpha contracting method appropriate?
  2. How does your organization arrive at a decision whether to use Alpha contracting?
    - a. What does your supervisor/management think about the Alpha contracting process?
  3. What factors led to the decision to use Alpha contracting on this requirement?
  4. What were the characteristics of the program that Alpha contracting was utilized on?
  5. At what stage in the acquisition planning did you realize Alpha contracting was the preferred method?
  6. Should alpha contracting be more widely used?
- How does Alpha contracting differ from traditional sole-source contracting processes?
  1. Can you describe the traditional sole source procurement process in detail from the realization of a need through contract award?
  2. Can you describe the Alpha contracting process from the realization of a need through contract award?
- What are the advantages of the Alpha contracting process?
  1. Was the initial milestone schedule accurate? If not, how many revisions were involved and why?
- What are the disadvantages of the Alpha contracting process?
- What are potential barriers to the utilization of the Alpha contracting approach?
  1. With DCAA's recent decision to eliminate their auditor/personnel's participation in the IPT process, (as it poses a possible conflict of interest and does not allow for an impartial review/environment), do you believe the Alpha contracting process could have been successful without DCAA participation in the Alpha IPT?
  2. Describe the initial planning stages, to include selection process for IPT members, location of IPT during Alpha contracting, and development of milestone schedule.

3. Please describe the group dynamics at the beginning of the process vs. the time of contract award. How has the group changed, if at all? How do you feel these changes (synergy, conflict, etc.) hurt or helped milestone achievement and subsequent contract award?
  4. Any resource constraints/considerations to using Alpha contracting?
- Can Alpha contracting work in a competitive procurement?
    1. Specifically, could an IPT in a competitive environment establish the same trusts, cooperation and commitments with multiple parties, and still reap the same benefits as realized in a sole source environment (i.e., PALT savings, better-defined requirements resulting in a decrease in contract modifications, etc.)?
      - Why or why not?
      - What are the issues?
      - How would those issues be mitigated?
  - Is there anything else that comes to mind?
  - If we need to ask any future questions could be contact you by phone?

THIS PAGE INTENTIONALLY LEFT BLANK

## **APPENDIX B. SAMPLE MEMORANDUM OF UNDERSTANDING (MOU)**

### **1. PURPOSE**

It is the mutual goal of the Government and COMPANY X to put into effect the following Alpha contracting techniques for the WIDGET Program. It is the objective of the parties involved to reduce cycle time through improved communications, commitment and cooperation. Alpha contracting promotes concurrent, mutual efforts to accomplish the objectives. Therefore, this MOU establishes an agreed to framework for Alpha contracting activities associated with the WIDGET Program. All signatories to this document agree to put forth a good faith effort in implementing the concepts contained herein.

#### **a. Commitment**

- (1) Implement Integrated Product Team Process (IPT) consisting of stakeholders.
- (2) Maintain management support.
- (3) Empower IPT members with approval authority, pending final senior management review and approval.
- (4) Build trust and confidence.
- (5) Clearly define and communicate programmatic and organizational requirements.
- (6) Make and support timely decisions at the IPT level, pending final senior management review and approval.

#### **b. Communication**

- (1) Involve stakeholders at earliest opportunity.
- (2) Share relevant evaluation and bid or proposal data consistent with TINA and applicable FAR provisions on a timely basis.
- (3) Discuss and attempt to solve problems up front.
- (4) Eliminate unnecessary documentation.

#### **c. Cooperation**

- (1) Work together and promote more teamwork.
- (2) Maintain professional relationships.
- (3) Actively involve the Government in proposal and contract development.

- (4) Achieve proposal agreement at the IPT Team level subject to final COMPANY X approval and submittal of the WIDGET proposal to the Government, in accordance with the milestone schedule.

## **2. SCOPE**

This MOU applies to the WIDGET effort. This MOU does not relieve either party from complying with or render ineffective any applicable Federal Laws or Federal Acquisition Regulations, or any COMPANY X policies and procedures.

## **3. CRITICAL CONCEPTS**

The process agreed to herein is based on communication, commitment and cooperation. In order to achieve a successful acquisition, all parties will be forthright, professional, and consistent in their dealings. This process is based on the following:

- a. Involvement of both the Government and COMPANY X for the duration of this MOU, as the key to minimizing process action time.
- b. COMPANY X and the Government will negotiate process-enabling terms, conditions and mechanisms to overcome institutional barriers that are not in conflict with existing COMPANY X, Government policies and procedure or applicable law.
- c. The Government and COMPANY X will attempt to periodically implement improvements to the SOW, Terms and Conditions, and all related contract data and documents.
- d. Development of an executable program more quickly through the introduction of Government requirement definition and concurrent fact-finding/proposal development.
- f. Raise any conflicts that arise to the respective team management, identified below, for resolution.

For the U.S. Government:

NAME, Procuring Contracting Officer, Acquisition Center,  
NAME, Electronic Engineer, Requiring Activity,

For COMPANY X:  
NAME, Contracts Manager, COMPANY X  
NAME, Program Manager, COMPANY X

#### **4. PROCESS SUMMARY**

The key elements of the WIDGET Program IPT are:

- a. Increased COMPANY X's involvement in suggesting alternative approaches related to Government needs.
- b. Government/COMPANY X team development/revision of Statement of Work (SOW) and other documents to assure that all top-level tasks are understood and reasonable.
- c. Concurrent Government/COMPANY X proposal development and fact-finding to reach agreement on detailed Basis of Estimates (BOEs) that implement the SOW and form the basis for proposal preparation. Concurrent fact-finding shall begin at the IPT Team level after initial BOE preparations and departmental reviews are completed. To the extent practical, the BOE process may be simplified through the use of relevant cost data.

#### **5. PROCESS RESULTS**

Through a better understanding of the objectives, concurrent efforts and the elimination of rework, this improved contracting process may result in a reduced cycle time to award the WIDGET Program.

#### **6. ORGANIZATIONAL RESPONSIBILITIES**

Each party agrees to the following:

- a. U.S. Government agrees to:
  - (1) Initiate action to establish a Joint Government/COMPANY X WIDGET Program IPT.
  - (2) Recognize that all pricing information provided to the Government prior to signature of the SF 1411 by COMPANY X and proposals submitted do not constitute certified cost and pricing data as defined



under the Truth in Negotiations Act any may be subject to update as of the date agreed to by the parties.

- (3) Recognize preliminary cost estimates as non-binding on COMPANY X until final corporate approvals are completed.
- (4) Implement process controls that provide rapid closure of open issues within the Government.
- (5) Coordinate field pricing early with DCMA to facilitate the concurrent fact finding/proposal development process.
- (6) Execute contractual actions promptly.
- (7) Provide information to COMPANY X regarding Government perceptions of risk associated with the contents of the SOW.
- (8) Upon contract award, reimburse COMPANY X for proposal preparation costs.

b. DCMA (insert Region) agrees to:

- (1) Continuously work with the Army to assure that all dealings with COMPANY X represent a fully coordinated Government position.
- (2) Communicate and coordinate with the Army in determining the minimum acceptable proposal support documentation and format.
- (3) Participate as requested by the Army in concurrent proposal development, fact-finding and technical evaluation.
- (4) Coordinate any agreements between the DCMA and COMPANY X IPT members with other Government IPT members prior to proposal preparation.
- (5) Provide a memorandum delineating agreements reached to the IPT Team.
- (6) Follow-up and support the Army in negotiations if necessary.

c. COMPANY X agrees to:

- (1) Provide and support all information in a timely manner to the Government team for the IPT reviews.
- (2) Work with the Government to keep proposal updates to a minimum.
- (3) Submit a proposal that is in a format agreed to by the IPT Team.

- (4) Implement internal process controls that provide rapid closure of open issues and eliminate duplication of effort within COMPANY X to the maximum practicable extent.
  - (5) Inform the Government of any perceptions of risk associated with the SOW or contract terms and conditions.
  - (6) Notify Government functional representatives of any changes to preliminary cost estimates or functional level agreements along with the rationale for the change.
- d. DCAA's responsibilities shall be:
- (1) Coordinate with DCMA for a timely ODC (material, travel, spare items, overheads, Other Direct, etc) review and detailed report, if requested by the Contracting Officer
  - (2) Timely rate review and detailed report, if requested by the Contracting Officer.

## **7. PROCESS SPECIFICS AND SCHEDULE**

The parties agree to work together towards the following objectives and recognize and accept their unique responsibilities with regard to the success of this IPT. The goals are specific to the WIDGET Program:

- a. The Government and COMPANY X will form an Integrated Product Team to refine WIDGET requirements and prepare all documents required for basic contract award. Target date for completion is **(INSERT DATE HERE)**.
- b. The Government and COMPANY X will maximize use Alpha contracting techniques as described herein.
- c. The Government and COMPANY X will employ the steps outlined in Attachment #1.
- d. Nominal IPT Members are listed in Attachment #2.
- e. The Product/Meeting Agreement is found at Attachment #3.

## 8. EFFECTIVE PERIOD OF MOU

This MOU becomes effective on the date of the last approval signature. It shall remain in effect until the WIDGET Contract is signed. Specific procedures developed among any of the undersigned, which facilitate the implementation of the MOU, may only be incorporated herein in writing. This MOU represents a non-binding managerial commitment to improve relationships, coordination and business practices. Any party, may, therefore, give notification and withdraw from this MOU rendering it immediately void with prior notice to the other parties in the event a conflict cannot be satisfactorily resolved under paragraph 3(f) above.

NAME		
Contracting Officer	Signature	Date

NAME		
Program Office NAME	Signature	Date

NAME		
Contract Manager	Signature	Date
COMPANY X		

NAME		
Program Manager	Signature	Date
COMPANY X		

NAME		
Administrative Contracting Officer	Signature	Date
DCMA (insert Region)		

Attachment #1 – Alpha contracting Steps  
Attachment #2 – IPT Membership  
Attachment #3 - Product/Meeting Agreement

## ATTACHMENT #1

### ALPHA CONTRACTING PROCESS STEPS

<b><u>STEP</u></b>	<b><u>ACTION</u></b>	<b><u>BY</u></b>
1	Requirement Identification	Govt
2	Requirement definition; IGCE - includes coordination with other tech POCs, CS	AO
3	Decision to Proceed	RA
4	Notify COMPANY X and coordinate Alpha schedule - allows COMPANY X to review, plan and concur on schedule - AO creates Alpha Package with CS	AO
5	Submit Alpha Package (Rqmt and schedule) to PCO	CS
6	Notification to COMPANY X to Implement Alpha contracting	PCO
7	Requirement Processed; Alpha Product created	IPT
8	Product Coordinated with Requiring Activity/COMPANY X Mgmt - assume Mgmt approval	IPT
9	Submit Alpha Product to PCO	CS
10	Execute Contract Action	PCO

#### **LEGEND:**

Alpha Package	=	Statement of Requirement, associated documents and Alpha schedule
Alpha Product	=	All final documents required for contractual implementation of the requirement
AO	=	Action Officer Government individual with technical cognizance for requirement
COMPANY X	=	COMPANY X– appropriate individual
CS	=	Contract Specialist

IPT	=	Integrated Product Team—appropriate members/individuals
PCO	=	Procuring Contracting Officer
RA	=	Requiring Activity

## **ATTACHMENT #2**

### **WIDGET IPT MEMBERSHIP**

PCO

REQUIRING ACTIVITY

COMPANY X Contract Manager

COMPANY X Program Manager

ACO

## **ATTACHMENT #3**

### **WIDGET PROGRAM**

**CONTRACT #**

### **INTEGRATED PRODUCT TEAM ALPHA CONTRACTING AGREEMENT**

**DATE:**

**Participating IPT Members:**      **GOVERNMENT**      **COMPANY X**

- (1)    Technical Requirements
- (2)    SOW
- (3)    Schedule
- (4)    Pricing
- (5)    Terms & Conditions

**SUBJECT:**

WIDGET Alpha contracting team members.

**REFERENCE:**

Kick-off meeting,

## **RESULTS:**

The kick-off meeting for the WIDGET Alpha contracting meeting was held (Insert date). As a result of the meeting IPT roles and responsibilities were defined. Milestones and objectives were defined.

The key milestones are:

\_\_\_\_\_ - Informal status presentation to management (individually to Requiring Activity and COMPANY X at respective locations and dependent on management availability)

\_\_\_\_\_ - Final technical baseline and contract sections.

\_\_\_\_\_ - Final approval and delivery to PCO

### **Contract # , WIDGET Program**

**AGREEMENT:** The following representative IPT members fully concur with the Alpha contracting results for WIDGET program. Attached are the (Insert type FFP, CPFF etc) prices incorporating agreements reached by the IPT:

## **SIGNATURES :**

NAME

Contracts Manager  
COMPANY X

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

NAME

Requiring Activity

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

NAME

PCO Acquisition Center

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

NAME  
Cost/Price Analyst  
DCMA (insert Region)

---

Signature Date

NAME  
Administrative Contracting Officer  
DCMA (insert Region)

---

Signature Date



THIS PAGE INTENTIONALLY LEFT BLANK

## APPENDIX C. CROSS-CASE META MATRIX

	Informant A	CS - Codes	RK- Codes	Informant B	CS - Codes	RK- Codes	Informant C	CS - Codes	RK- Codes
Title/Exp.	PM - 1.5 years (In that role)	EXP-L	EXP-L	Supervisory Contracting Officer - 27.5 years	EXP-H	EXP-H	Contract Price/Cost Analyst - 29 YEAR	EXP-H	EXP-H
Program	C-130 Center Wing Replacement			ATIRCM/CMWS			EPLRS & SINGARS (FMS)		
IPT Role	Project Manager - Lead in charge of Cost, Schedule and Performance			Contracting Officer			Contract Price/Cost Analyst		
Alpha K Definition	Gov't and Ktr work together to reach a mutually acceptable negotiated agreement. "The Ktr agrees to open their books to the Gov't which promotes cost transparency and reduces time to negotiate a K."	TEAM	TEAM	To have both the Gov't and Ktr work in a collaborative environment to reduce cycle time through improved communications, commitment, and cooperation. It promotes concurrent, mutual efforts to accomplish the objectives.	TEAM	TEAM	Process that involves many activities and disciplines performed jointly as teams to develop the proposal, evaluate it, negotiate it, and award a contract for the desired items quickly, fairly, and efficiently.	TEAM	TEAM
What constitutes/defines successful Alpha Contracting?				Teams working together to reach final goal (contract award) on schedule and within cost constraints.	FS TEAM	TEAM	Desired outcome achieved more quickly and efficiently.		
How Did IPT Define Success?	Reduction in amount of time required to reach a fair and reasonable agreement with the Ktr.			Substantial cost savings and accelerated award.			Contract was awarded much quicker and more efficiently.		
Measures to Assess Effectiveness?	No measures - Were directed to utilize Alpha.			Memo of understanding signed by all parties.			Meetings and discussions on strategy and procedures and the ultimate goal was award of the contract.	FS TEAM	FS
Group Successful as a whole?	"We successfully agreed to a contract"			yes			yes		
Factors that contribute to success?				Team work and a lot of hard work.	FS TEAM	TEAM, FS	There was a SME for every discipline or activity involved from the beginning and each area worked in parallel or unison to complete the goals.	FS TEAM	FS, TEAM
Key members responsible for success?	Respective KOs and PMs			DCMC, Ktr, PM, and acquisition center			All members were responsible at some point for the success.	TEAM	
Changes to make Alpha K more successful?	Successful Alpha contracting requires open communication between Ktr and Gov't. Both parties should have an understanding of what Alpha Contracting really means.	FS	FS	nothing that I can think of.			Alpha contracting needs to be done more.		FS
Implemented/changed policy to make more successful?	Implemented a lessons learned			No, followed policies already in place at the command.			Don't know.		

	Informant A	CS - Codes	RK- Codes	Informant B	CS - Codes	RK- Codes	Informant C	CS - Codes	RK- Codes
What defines an unsuccessful Alpha K process?				Lack of teamwork and coordination of tasks	FU	FU			
Factors that contribute to failure?	Lack of open communication between Ktr and Gov't. In order to reduce time to negotiate K, the Gov't must be provided with all necessary documentation to justify Ktr's BOEs.	FU BARR	FU						
Key members responsible for failure?	Respective KOs and PMs are responsible for not maintaining a spirit of cooperation			did not experience failure					
Who was involved in the decision to use Alpha K?	They were directed to use it.			PM, Acq. Center, Ktr, with approval from PARC.			Don't know - were told that they were doing it that way.		
Would you have done anything differently?	Would have had an initial meeting with Ktr to describe the Gov't expectations of Alpha Contracting	FS	FS	No, because if they did not use Alpha it would have been a longer drawn-out process given multitude of the requirements and term.			No		
How often is Alpha employed and why?	Often at WRALC			I do not believe true Alpha Contracting is used too often.			I have only done it a few times		
When should Alpha K be used?	During sole-source procurements		CIRC				Sole source, complicated, large, urgently needed procurements.	CIRC	CIRC
How does your organization decide to use Alpha?				KO prepares paperwork to request approval with rationale to support it.			Don't know		
What does your supervisor think about Alpha process?	WRALC is sold on the idea of Alpha Contracting	CIRC	CIRC	Supervisor supported it at the time.			Don't know		
What factors led to use Alpha on this requirement?				If they did not use Alpha it would have been a longer drawn-out process given multitude of the requirements and term.	CIRC	CIRC	Don't know		
What were characteristics of the program that Alpha was used on?	Sole source procurement to the OEM	CIRC	CIRC	5 year IDIQ K for a major system in various configurations, with spares to support the systems. Approximately 200 line items.			Sole source, complicated, large, urgently needed procurements.		
What stage of AP did you realize that Alpha was the preferred method?	During acquisition strategy planning.		CIRC	At the beginning during acq. Planning and J&A preparation.		CIRC	The beginning.		
Should Alpha be used more widely?	Yes			Absolutely, if utilized correctly.			yes		
How does Alpha differ from traditional sole source contracting?							It is more efficient and quicker.		
Describe sole source process?	Gov't and Ktr send proposals and other correspondence back and forth before anything is agreed on. The Ktr is not free and open with their true costs which makes determining fair and reasonable prices difficult. All of these issues add time to the award schedule.			SEE NOTES			Maybe		

	Informant A	CS - Codes	RK- Codes	Informant B	CS - Codes	RK- Codes	Informant C	CS - Codes	RK- Codes
Describe Alpha K process?	Allows open communication. Face-to-face meetings to work out issues. Ktr opens their books to the Government to see actuals which also reduces lead time.			SEE NOTES			Don't remember - long time ago		
Advantages to Alpha K?							Everything is done in parallel or unison and we were at the contractors plant so it was easier to obtain information and evaluate it quicker.	FS TEAM	FS
Was initial milestone schedule accurate? If not, how many revisions and why?	One revision. However, worked through Nov. and Dec. holidays and had some issues with CRA money.	FU CIRC	FU	Yes, initial milestone were accurate.			Don't remember - long time ago		
Disadvantages to Alpha K?	Did not experience any			Time consuming for a short period of time because it requires being at a designated location, working long hours for a fixed period (2-3 weeks). Will not work without a teaming arrangement.	BARR TEAM	TEAM, BARR	You need all of SME dedicate to the effort from beginning to end. You need the cooperation of both sides.	FS TEAM	FU
Potential barriers to use of Alpha?	Must be a level of trust between the parties.	FU BARR	BARR, CIRC				You need all of SME dedicate to the effort from beginning to end. You need the cooperation of both sides.	BARR	BARR
Could it be successful without DCAA involvement?	Had very little DCAA involvement. Utilized the Navy Price Fighters instead. They provided validation of the Ktr's manufacturing numbers and methodology.			No, it will not work without DCAA.	BARR	BARR	No, they are absolutely essential.	BARR	BARR
Describe initial planning stages?	Brought in after the IPT was already formed.			SEE NOTES	TEAM	TEAM	Not involved in this.		
Group dynamics at beginning versus end?	Good throughout process. There was normal conflict, which was to be expected when working long hours on an important program.	TEAM	TEAM	Very little conflict - occasional frustration because of long hours.			There was a learning curve process. At first, you have to get to know everyone and then work together to accomplish the goal. I think we got better as time went along and worked well with each other on both sides. There has to be cooperation on both sides for success.	TEAM	TEAM
Any resource constraints/consideration when using Alpha?	Manpower is always a constraint.	FS BARR	BARR	Contractor needs to agree to recognize costs for Alpha Contracting as a cost for doing business.			Need knowledge personnel from all activities.		
Can Alpha work in competitive procurement?	Would likely be extremely difficult.			no	BARR	BARR	Possibly - some Alpha concepts are used for competitions.		

Respondents									
	Informant D	CS - Codes	RK- Codes	Informant D (2)	CS - Codes	RK- Codes	Informant E	CS - Codes	RK- Codes
Title	Contract Specialist - 16 years	EXP-M	EXP-M	Contract Specialist - 16 years	EXP-M	EXP-M	Cost/Price Analyst - 29 YEARS	EXP-H	EXP-H
Program	Mobile Subscriber Equipment (MSE) Shelter Overhaul (MSO) Phase III			Mobile Subscriber Equipment (MSE) Shelter Overhaul (MSO) Phase III			5 programs in past 4-5 years. 4 flexibly priced contracts, and one fixed priced.		
IPT Role	Alpha Contracting IPT Lead			Alpha Contracting IPT Lead			Team member - Cost/Price Analyst		
Alpha K Definition	Innovative technique which employs a team approach to implement a concurrent acquisition process - from requirement definition to award.	TEAM	TEAM	Innovative technique which employs a team approach to implement a concurrent acquisition process - from requirement definition to award.	TEAM	TEAM	Provided excerpt from DCMA Guidebook - SEE NOTES	TEAM	TEAM
What constitutes/defines successful Alpha Contracting?	Timely award of a contract at a fair and reasonable price, which all parties fully understand and support.			Timely award of a contract at a fair and reasonable price, which all parties fully understand and support.					
How Did IPT Define Success?	Timely contract award - J&A was approved late and did not allow for the traditional approach.			Used it to award the Phase III and it worked so well, everyone agreed to employ it again for this.			A proposal being submitted on or before the target date and the proposal being accepted as proposed.		
Measures to Assess Effectiveness?	IPT estimated that it saved approximately 90 days (this was after the process - not prior). An unexpected benefit was the lower prices they negotiated since they had the raw data and were able to build prices alongside the contractor.			No metrics ahead of time, other than drop dead date for award - which was met.			Don't know		
Group Successful as a whole?	Yes			yes			Yes, in all cases of IPT pricing, except one, proposals were submitted that we accepted		
Factors that contribute to success?	Commitment of the IPT members and management to the Alpha process; Empowerment of the IPT members to reach agreements; No hidden agendas - everyone working towards a common goal; trust, cooperation, and competence of IPT members.	FS TEAM EXP	TEAM, FS	Commitment; empowerment; no hidden agendas; trust, cooperation, and competence of the IPT members.	FS TEAM EXP	TEAM, FS			
Key members responsible for success?	DCMA price analyst and engineers for the Gov't. Finance manager for the Ktr.			DCMA price analyst and engineers for the Gov't. Finance manager for the Ktr.			My input was only on the specific cost issues. Specialist and KO took on the contract issues and tech folks reviewed proposed hours and tech issues, so really a team effort.	TEAM	
Changes to make Alpha K more successful?	Some allowance for DCAA to participate or contribute on the IPT level.	BARR CIRC	CIRC or BARR	Some allowance for DCAA to participate or contribute on the IPT level.	BARR CIRC	CIRC or BARR			
Implemented/changed policy to make more successful?	no			No metrics ahead of time, other than drop dead date for award - which was met.			no		

	Informant D	CS - Codes	RK- Codes	Informant D (2)	CS - Codes	RK- Codes	Informant E	CS - Codes	RK- Codes
What defines an unsuccessful Alpha K process?									
Factors that contribute to failure?	lack of commitment	BARR FU	FU	lack of commitment	BARR FU	FU			
Key members responsible for failure?	did not fail.			did not fail.					
Who was involved in the decision to use Alpha K?	Contract Specialist suggested and got obtain agreement of the KO and group chief.	CIRC	CIRC	Since it worked so well on the previous contract, it was almost a foregone conclusion that we would do it again.	CIRC	CIRC			
Would you have done anything differently?	not for this effort			not for this effort			Alpha contracting was initiated by KO and DCMA was a team member. Can't think of anything to do differently.		
How often is Alpha employed and why?									
When should Alpha K be used?	Works well is sole source efforts where there is a good working relationship between the Ktr and Gov't and where the IPT members have the time to devote to the process.	CIRC TEAM	CIRC, TEAM	Works well is sole source efforts where there is a good working relationship between the Ktr and Gov't and where the IPT members have the time to devote to the process.	CIRC TEAM	CIRC, TEAM	Flexibly priced contracts were easier to review than fixed. Inability for DCAA to participate is a major stumbling block.	FU BARR CIRC	CIRC, BARR
How does your organization decide to use Alpha?	KO and specialist will determine whether appropriate. MOU is signed by all parties, but final approval rests with the POM Waiver approval authority.			KO and specialist will determine whether appropriate. MOU is signed by all parties, but final approval rests with the POM Waiver approval authority.			Up to the ACO or PCO		
What does your supervisor think about Alpha process?	It is useful.			It is useful.			unknown		
What factors led to use Alpha on this requirement?	Time constraints - simply did not have time to follow the sequential process. It was a follow-on contract and services could not be interrupted.	CIRC	CIRC	Success in alpha in the negotiation and award of previous contract.	CIRC	CIRC			
What were characteristics of the program that Alpha was used on?	Sole source, defined requirements, large value (\$160M)			Sole source, defined requirements, large value (\$100M)			4 flexibly priced (LOE) logistics support contracts which were follow-on efforts with actuals available. Fifth contract was for logistic support and training.		
What stage of AP did you realize that Alpha was the preferred method?	Realized the J&A would not be approved in time to support the traditional process. At the time Alpha was just starting to be used and thought it was worth a try in order to reach timely award.			Right at the beginning.		CIRC			
Should Alpha be used more widely?	I think some people don't fully understand how beneficial it can be and so it is not as widely used as it could be. Also, when it fails, it fails spectacularly so I think it scares some people.	BARR	BARR	I think some people don't fully understand how beneficial it can be and so it is not as widely used as it could be. Also, when it fails, it fails spectacularly so I think it scares some people.	BARR	BARR	Personally, I am not a big fan.		
How does Alpha differ from traditional sole source contracting?							Not involved in these stages		
Describe sole source process?	SEE NOTES			SEE NOTES			Not involved in these stages		

	Informant D	CS - Codes	RK- Codes	Informant D (2)	CS - Codes	RK- Codes	Informant E	CS - Codes	RK- Codes
Describe Alpha K process?	SEE NOTES			SEE NOTES			Not involved in these stages		
Advantages to Alpha K?	Improved communications, possible significant price reductions and reduced time to award. Also, improved understanding of the resultant contract and prices, establishment of a team committed to making the contract work smoothly.	FS TEAM	TEAM	Improved communications, possible significant price reductions and reduced time to award. Also, improved understanding of the resultant contract and prices, establishment of a team committed to making the contract work smoothly.	FS TEAM	TEAM			
Was Initial milestone schedule accurate? If not, how many revisions and why?	No, had to be revised a few times - mostly timing of submissions due to system down time and some predecessor tasks taking longer than anticipated.			No, had to be revised a few times - mostly timing of submissions due to system down time and some predecessor tasks taking longer than anticipated.			In all cases a realistic milestones was set and met.		
Disadvantages to Alpha K?	If IPT can't come to agreement the whole traditional process has to start - likely causing negotiations to be more difficult and added pressure to award. If it does go badly it can damage the Ktr/Gov't relationship. Alpha is a resource intensive process that can be challenging in organizations with resource issues.	BARR	BARR	If IPT can't come to agreement the whole traditional process has to start - likely causing negotiations to be more difficult and added pressure to award. If it does go badly it can damage the Ktr/Gov't relationship. Alpha is a resource intensive process that can be challenging in organizations with resource issues.	BARR	BARR			
Potential barriers to use of Alpha?									
Could it be successful without DCAA involvement?	DCAA was not part of the process. When this was done (1999) DCAA informed me that they were not permitted to be part of an IPT. Even so, they did provide recommended direct/indirect rates for Ktr and did provide a separate material audit report. It would have been beneficial for them to be part of the IPT, they did contribute.			DCAA was not part of the process. When this was done DCAA informed me that they were not permitted to be part of an IPT. Even so, they did provide recommended direct/indirect rates for Ktr and did provide a separate material audit report. It would have been beneficial for them to be part of the IPT, they did contribute.			I think DCAA needs to buy into this process in order for it to work, otherwise the Kos and buying activities will be setting themselves up for potential adverse post award criticism from DCAA.	FU BARR CIRC	BARR, FU
Describe initial planning stages?	Agreed to all of these issues at the kick-off meeting. Had IPTs for technical, pricing, and contracts, so assignments were not difficult. Agreed that the contract and technical IPTs would communicate via email and phone and would meet in person if necessary. The DCMA price analyst was already on-site with Ktr.	TEAM	TEAM	Agreed to all of these issues at the kick-off meeting. Had IPTs for technical, pricing, and contracts, so assignments were not difficult. Agreed that the contract and technical IPTs would communicate via email and phone and would meet in person if necessary. The DCMA price analyst was already on-site with Ktr.	TEAM	TEAM			
Group dynamics at beginning versus end?	Has a really good group that was committed to making process work - I think going through the process made the group more cohesive.	TEAM	TEAM	Even though some of the personnel changed from the first time, the group still worked well together and was committed to the process. The newer people jumped in and the end result and the end result was a cohesive group that continued to work well after award when issues would arise.	TEAM	TEAM			
Any resource constraints/consideration when using Alpha?	Probably the toughest aspect to sell to the org. In order to achieve benefits, sufficient resources need to be dedicated to the process. That's not to say they can't perform other duties, but need to be able to devote a significant portion of their time when submissions come in or when IPT meetings are held.	BARR	BARR	Probably the toughest aspect to sell to the org. In order to achieve benefits, sufficient resources need to be dedicated to the process. That's not to say they can't perform other duties, but need to be able to devote a significant portion of their time when submissions come in or when IPT meetings are held.	BARR	BARR			
Can Alpha work in competitive procurement?	SEE NOTES- Some aspects could possibly be used, but the process may be tough	BARR	BARR	SEE NOTES- Some aspects could possibly be used, but the process may be tough	BARR	BARR	Doubt contractors would participate in a competitive environment.	BARR	BARR

	Informant F	CS - Codes	RK- Codes	Informant G	CS - Codes	RK- Codes	Informant H	CS - Codes	RK- Codes	
Title	Group Chief	EXP-M	EXP-M	Group Chief	EXP-H	EXP-M	Associate Director of Contracting Operations - 15 years	EXP-H	EXP-H	Title
Program	Firefinder (V)8 Upgrade			TESAR			Intelligence Electronic Warfare Common Sensor (IEWCS)			Program
IPT Role	Contracting Officer			Group Chief			Contract Specialist			IPT Role
Alpha K Definition							Everyone working together as a team to complete contract negotiations.	TEAM	TEAM	Alpha K Definition
What constitutes/defines successful Alpha Contracting?							Awarding the contract so that both Ktr, PMO, and contracts people understood what was being done; delivering requirement on time and under budget.	FS	FS	What constitutes/defines successful Alpha Contracting?
How Did IPT Define Success?	Expedited contract award within budget			Reduced cycle time and proposal prep expenses			Success was never formalized			How Did IPT Define Success?
Measures to Assess Effectiveness?	No			no			No metrics were established.			Measures to Assess Effectiveness?
Group Successful as a whole?	Yes, but did not save a lot of time - would have been longer with traditional process though			yes, but not sure if worth it.			yes			Group Successful as a whole?
Factors that contribute to success?	Team was committed to the process and goals - (NOTE: Ktr and Gov't already had a contractual relationship in place).	FS TEAM	TEAM, FS				Negotiation if the individual elements and understanding of DCAA/DCMA/customer coming to consensus on what should be accomplished in Alpha IPT.	FS	FS	Factors that contribute to success?
Key members responsible for success?							PMO lead (Lt. Col. at the time). Evaluators like a very large role (required commitment of the staff). Alpha takes the most time/resources in the beginning of the process. The KO and specialist had to convince the Lt. Col. That this was the way to go. In general, leadership support and dedication of resources were key.	TEAM	TEAM	Key members responsible for success?
Changes to make Alpha K more successful?	Use as the exception, not the norm - when circumstances dictate the use.		CIRC	Remove non-value added processes (people with apparent authority still had to brief upper management adding time to the process)		FS, CIRC	More structure. Part of the joy of alpha is less structure, but people take advantage of that and therefore the process loses integrity.	FU BARR		Changes to make Alpha K more successful?
Implemented/changed policy to make more successful?	Not a policy change, but lesson learned - they implemented murder boards during process and built each party's needs for requirements definition	FS CIRC	CIRC	Nothing Implemented, but recommended having charters that include: conflict escalation procedures; agreement up front on pricing methodology; and provision for minority recommendations		CIRC	Formalized Memorandum of agreement for all parties involved - this defined everyone's responsibilities and made process more successful	FS		Implemented/changed policy to make more successful?



	Informant F	CS - Codes	RK- Codes	Informant G	CS - Codes	RK- Codes	Informant H	CS - Codes	RK- Codes	
What defines an unsuccessful Alpha K process?							People used the term "alpha" to avoid doing some normal contracting activities (such as a PNM); however, they are just going into negotiations and skipping those steps. This made it difficult to support/substantiate after the fact. People abuse the process by saying they are doing alpha, but not actually doing it.	FU	FU	What defines an unsuccessful Alpha K process?
Factors that contribute to failure?							Abuse of method, not following process. Calling it alpha when it is just streamlined negotiations.	FU	FU	Factors that contribute to failure?
Key members responsible for failure?							If all parties are not involved, then its not alpha.			Key members responsible for failure?
Who was involved in the decision to use Alpha K?	Ktr, tech team, software team (Ft. Sill), LRC, and integration team			it was tough to get the appropriate parties involved with authority.	FU BARR	BARR, FU	Primarily the KO and PM.			Who was involved in the decision to use Alpha K?
Would you have done anything differently?	Would have liked better tech input from PM - developing the requirements was the weakest part	FU BARR	FU, BARR, CIRC				Ktrs are Ktrs - so you have to remember that even though you are all working together on the same Alpha IPT team, they are still contractors.		TEAM	Would you have done anything differently?
How often is Alpha employed and why?							In its true sense, not too often. Should be for sole source, major programs, where you'd really have to go through SOW and requirements together to truly understand the effort.		CIRC	How often is Alpha employed and why?
When should Alpha K be used?	As an exception, when circumstances do not permit time for the traditional process.	CIRC	CIRC	In unique situations, after a cost-benefit analysis is conducted to verify whether estimated contractual savings will be greater than the estimated cost to implement	CIRC	CIRC	Sole source, but it is often implemented in a way that it is streamlined negotiations, not Alpha in the strict/true sense.		CIRC	When should Alpha K be used?
How does your organization decide to use Alpha?							Mostly Kos decision. Need customer commitment, which does not always happen.		CIRC, BARR, FU	How does your organization decide to use Alpha?
What does your supervisor think about Alpha process?							If used properly, it's a great process. Always had support any time we wanted to use it. As a sector chief, I always supported someone that wanted to use it.	FS	FS	What does your supervisor think about Alpha process?
What factors led to use Alpha on this requirement?				Schedule and budget pressure (primarily schedule)		CIRC	Circumstances. A lot of negotiations had to take place to definitize NTEs; wanted to build a relationship, since this was transferred to CECOM; better understanding of requirements; major restructuring of the contract for better understanding.	TEAM	TEAM, CIRC	What factors led to use Alpha on this requirement?
What were characteristics of the program that Alpha was used on?	FFP/T&M for hardware and services for electronics upgrade program. Included 2 option years. Base contract was \$19M			LRIP, FFP and cost plus						What were characteristics of the program that Alpha was used on?
What stage of AP did you realize that Alpha was the preferred method?							Very early in process, before the requirement is even defined.	CIRC	CIRC	What stage of AP did you realize that Alpha was the preferred method?
Should Alpha be used more widely?	No, only as an exception		CIRC	No, only in unique situations		CIRC	No, it is better suited for larger, sole source programs. Commands that use sole source more often should use Alpha more often.	CIRC	CIRC	Should Alpha be used more widely?
How does Alpha differ from traditional sole source contracting?										How does Alpha differ from traditional sole source contracting?
Describe sole source process?							SEE NOTES			Describe sole source process?

	Informant F	CS - Codes	RK- Codes	Informant G	CS - Codes	RK- Codes	Informant H	CS - Codes	RK- Codes	
Describe Alpha K process?							SEE NOTES			Describe Alpha K process?
Advantages to Alpha K?				Potential time savings and potential cost reductions			Understanding requirements, team building/relationship building. Does require more time on the part of the contracts office, but it does speed up process overall.	BARR TEAM	TEAM, BARR	Advantages to Alpha K?
Was Initial milestone schedule accurate? If not, how many revisions and why?	Had to be shifted to the right on several occasions, largely due to difficulties in developing and defining requirements. Also issues with delays due to new people rotating in and out of IPT	FU BARR	CIRC, FU, BARR	Yes, for the most part it was accurate.			Don't remember			Was Initial milestone schedule accurate? If not, how many revisions and why?
Disadvantages to Alpha K?	Very labor intensive	BARR	BARR	1) Very labor intensive; 2) Cost driver (such as OT and travel); 3) no metrics to measure success; 4) May not be a great savings of time, and those savings may be anecdotal - was it worth working a team 24/7 for 1.5-2 months straight?	BARR	BARR	Time involved for contracts people and PM. No longer an opportunity to say its their turn to work on a portion and you can work on the remainder of your workload during that time.	BARR TEAM	BARR	Disadvantages to Alpha K?
Potential barriers to use of Alpha?	New people rotating in and out; TDY time and funding	FU BARR	BARR							Potential barriers to use of Alpha?
Could it be successful without DCAA involvement?				Yes, neither time TESAR used Alpha contract was DCAA involved - DCAA refused to participate saying that it would interfere with their independence. IPTs used FPRAs, and DCAA audits outside the scope of the IPT. Also, the Navy Price Fighters were used the second time.			No, it kills the process. Could do everything without DCAA, but would still need DCAA audit afterwards, which would cause a re-opening of negotiations. May be rationale to waive DCAA audit, which is one way to circumvent DCAA.	BARR	BARR	Could it be successful without DCAA involvement?
Describe initial planning stages?							SEE NOTES	TEAM	TEAM	Describe initial planning stages?
Group dynamics at beginning versus end?							Tend to get close to team members. Strengths and weaknesses come out and pressure can build, but worked through it. It was like a great team-building exercise to kick off the program.	TEAM	TEAM	Group dynamics at beginning versus end?
Any resource constraints/consideration when using Alpha?	Yes, TDY time and funding	BARR	BARR				People are a constraint/consideration. Need to have a dedicated team. All contract offices and PMs are short resources - management has to be willing to dedicate those resources to that effort for the duration of the Alpha IPT.	BARR FU	BARR, FU	Any resource constraints/consideration when using Alpha?
Can Alpha work in competitive procurement?							Very difficult.			Can Alpha work in competitive procurement?

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF REFERENCES

- Auerbach, C. F., & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. New York: New York University Press.
- BAE Systems. (2006, July 7). *BAE systems to protect army aircraft with advanced systems*. Retrieved October 21, 2008, from <http://www.eis.na.baesystems.com/index.htm>
- Brodhuehrer, B. L. (May–June 2000). A total systems life cycle view on reducing cycle time. *PM*, 22–27.
- Burt, D. N. (2003). *World class supply management: The key to supply management*. Boston: McGraw-Hill Irwin.
- Clubb, D. G. (1996, Fall). Blinding speed equals competitive advantage. *Acquisition Review Quarterly*, 175–180.
- Cuskey, J. R. (n.d.). *Principles of alpha contracting*. Monterey, CA: Naval Postgraduate School.
- Dwyer, F. R. (1987, April). Developing buyer-seller relationships. *Journal of Marketing*, 51, 11–27.
- Ellram, L. M. (1996). Use of the case study method in logistics research. *Journal of Business Logistics*, 17(2), 93–138.
- Federal Acquisition Institute and Air Force Institute of Technology. (n.d.). *Contract Pricing Reference Guide, Volume V*. Retrieved August 4, 2008, from [www.acq.osd.mil/dpap/cpf/contract\\_pricing\\_reference\\_guides.html](http://www.acq.osd.mil/dpap/cpf/contract_pricing_reference_guides.html)
- Federal Acquisition Institute. (2008, May). *Annual report on the federal acquisition: Fiscal Year 2007*.
- Gansler, J. S. (2007). *Urgent reform required: Army expeditionary contracting*.
- Garret, G. A. (2005). *Negotiations: Skills, tools, and best practices*. Chicago: CCH Incorporated.
- Gill, M. A. (2009, April 27). Integrated product team pricing and negotiation process. *Policy Memo 2009-PK-003*.
- Goodwin, C. M. (2002). *Acquisition reform through alpha contracting*. Monterey: Naval Postgraduate School.

- Hanks, C. H. (2005). *Reexamining military acquisition reform—Are we there yet?* Santa Monica: RAND Corporation.
- Huffstetler, S. B. (2000, September–October). Commanche and "Alpha" Contracting. *PM*, 54–56.
- Jap, S. D. (1995, November). Pie-expansion efforts: Collaboration processes in buyer-supplier relationships. *Journal of Marketing Research*, XXXVI, 461–475.
- Kraljic, P. (1983, September–October). Purchasing must become supply management. *Harvard Business Review*, 109–117.
- Lauer, P. A. (2004, February). *A Policymaker's primer on education research: How to understand, evaluate and use it*. Retrieved July 19, 2009, from <http://www.ecs.org>
- Meyer, T. C. (1997, January–February). Alpha contracting—Applying the IPT approach to contract negotiations. *Army RD&A*, 20–21.
- Miles, M. B. (1994). *Qualitative data analysis*. Thousand Oaks: Sage Publications.
- Morgan, R. M. (1994, July). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 20–38.
- Mount, M. (2004, February 23). *CNN*. Retrieved October 28, 2008, from <http://www.cnn.com/2004/US/02/23/helicopter.cancel/>
- Nissen, M. E. (2001). *Contracting process innovation*. Monterey: Naval Postgraduate School.
- Nissen, M. E. *JSOW Alpha contracting case study (software version)*. Monterey: Naval Postgraduate School.
- Office of the Under Secretary of Defense (Acquisition and Technology). (1998). *Integrated product and process development handbook*.
- President's Blue Ribbon Commission on Defense Management. (1986). *A quest for excellence—Final report to the President*.
- Rapka, R. J. (2006, January–March). A successful Alpha contracting experience. *Army AL&T*, 34–37.
- Saccoccia, K. J. (2008, August 4). Discontinuance of DCAA participation in Integrated Product Teams (IPTs). *Memorandum for Director, Defense Procurement, Acquisition Policy and Strategic Sourcing*.
- Schutter, G. A. (1998). *Process innovation through Alpha contracting: An analysis of Department of Defense service contracts*. Monterey: Naval Postgraduate School.

- Siemens, T. I. (2002, Summer). Just contracting parties, or partners as well. *Acquisition Review Quarterly*, 224–229.
- United States. General Services Administration. Department of Defense, and National Aeronautics and Space Administration. (2008). *Federal acquisition regulations*.
- Varadarajan, R. P. (1995). Strategic alliances: A synthesis of conceptual foundations. *Journal of the Academy of Marketing Science*, 23(4), 282–296.
- Vinson, G. E. (2001, January–February). Dual mount stinger: designed, produced, and fielded in three years. *PM*, 26–28.
- Wallace, F. (2000, September–October). Comanche acquisition approach. *PM*, 50–53.
- Will, E. L. (1999, Fall). Paving the way for price-based acquisition. *Acquisition Review Quarterly*, 369–382.
- Yin, R. K. (2003). *Case study research: Designs and methods*. Thousand Oaks: Sage Publications.
- Yin, R. K. (2004, January). *Case study methods*.
- Zsidsisin, G. A. (2005). Managing supply risk with early supplier involvement: A case study and research propositions. *Journal of Supply Chain Management*, 41(4), 44–57.

THIS PAGE INTENTIONALLY LEFT BLANK

## **INITIAL DISTRIBUTION LIST**

1. Defense Technical Information Center  
Fort Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California
3. Jeffrey Cuskey  
Naval Postgraduate School  
Monterey, California
4. Dr. Timothy Hawkins  
Naval Postgraduate School  
Monterey, California
5. Colleen Sweeney  
CECOM Contracting Center  
Ft. Monmouth, New Jersey
6. Robert Kirzow  
OLE-FAMS Contracts and Procurement Division  
Egg Harbor Twp, New Jersey